

# Contemporary Psychology

A JOURNAL OF REVIEWS

October 1960

VOLUME V • NUMBER 10

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Published by THE AMERICAN PSYCHOLOGICAL ASSOCIATION

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*Contemporary Psychology: A Journal of Reviews* is published monthly. The yearly volume comprises approximately 384 pages. The subscription per year is \$8.00, foreign \$8.50, single number \$1.00.

Published by the American Psychological Association at Prince and Lemon Sts., Lancaster, Pa. and 1333 Sixteenth St., N.W., Washington 6, D. C.

Second-class postage paid at Lancaster, Pa., and at additional mailing offices.

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# Contemporary Psychology

A JOURNAL OF REVIEWS

VOLUME V

October 1960

NUMBER 10

## A Scientist at Work

Georg v. Békésy

*Experiments in Hearing.* (Trans. & ed. by E. G. Wever.) New York: McGraw-Hill, 1960. Pp. x + 745. \$25.00.

Reviewed by HALLOWELL DAVIS

*Dr. Davis has been for nearly fifteen years Professor of Physiology in the Medical School of Washington University in St. Louis and Director of Research at the Central Institute for the Deaf also in St. Louis. For twenty-five years before that he was at Harvard in various positions from instructor to Associate Professor of Physiology. With L. J. Saul, he was largely responsible in 1932 for settling the moot question about the Wever-Bray effect: when you speak to the cat the higher frequencies are not represented isochronically in the VIIIth nerve, but appear as aural microphonics at the cochlea. With S. S. Stevens, Davis wrote Hearing (Wiley) in 1938, for a long time the basic handbook in psychoacoustics. He is a member of the National Academy of Sciences and of many physiological and acoustical organizations and remains a productive investigator in his special field.*

BÉKÉSY's volume is an unusual book and an important book. It is a source book which makes available in one volume most of the writings of Georg von Békésy. Many of the papers have been translated from the German and all of them have been expertly edited and arranged by Professor E.

Glen Wever. The book was not planned, organized, and written as a whole to develop some central theme with all of the facts already in view. Because of its lack of continuity and a scarcity of explicit over-all generalizations, it is not easy to read or to review. To review the book is, moreover, to review the life work and the point of view of Georg von Békésy, a scientist at work.

The account is important, first, because it unifies, in practical and effective fashion, information that has appeared in several different periodicals. Many of the earlier articles are now practically unobtainable. Now they are available. Furthermore, the judicious grouping together of papers and even of parts of different papers brings to the attention of the reader related observations that were published at different times and in different journals.

Secondly, the book is important because the work which it represents is important. Here follow a dozen of its now important contributions. Almost singlehanded, Békésy has given us an accepted definitive description of the biophysics of the inner ear, which includes descriptions of the physical properties of the various parts of the middle and inner ear and statements of how the parts move under the influence of

acoustic stimuli, as well as measurements of important physical constants such as the volume displacement of the basilar membrane. The clear description of the traveling wave patterns of displacement and the relation of the positions of these patterns of movement of the basilar membrane to the frequency of stimulation has provided a firm basis for our modern theories of hearing. Békésy's descriptions and measurements of sound conduction in the middle ear and in bone conduction are now accepted without question as the best that are available. Békésy devised an automatic patient-controlled recording audiometer, now in widespread use, which has opened up the whole field of rapid changes in auditory sensitivity, whether they be fatigue or adaptation. His electrophysiological explorations of the inner ear with microelectrodes culminated in his discovery of the biologically unique "endocochlear potential." The endolymph of the cochlea, Békésy showed, carries an electrical charge of about 80 millivolts positive relative to the surrounding tissues, including the perilymph of both scala vestibuli and scala tympani. Békésy demonstrated that the electrical response of the ear, usually known as the cochlear microphonic, cannot be a mere transduction of acoustic to electrical energy but must represent a tapping of a reservoir or 'pool' of available biological energy under the control of the acoustic stimulus. This concept is now generally accepted, and the endocochlear potential is recognized as at least a part of this available 'pool.' Békésy also carried out many original psychophysical studies of such attributes of sounds as their loudness,

their pitch, their susceptibility to fatigue, and their spatial attributes. More recently he has extended such experiments to corresponding studies of tactile sensations aroused by vibratory stimuli. The cross-modality comparisons and analogies and the inferences which can be drawn in regard to the performance and organization of sensory systems represent a significant advance in sensory neurophysiology.

THE book is important for psychology as a whole because it illustrates how a sister discipline, in this case physics, can contribute effectively to psychology. Békésy is primarily a physicist. He was born in Budapest, Hungary, and educated at the University of Bern and also at the University of Budapest where he received the degree of PhD in 1923. He then worked for the Siemens and Halske A.G. in Berlin and for the Hungarian telephone system in Budapest. Next he became professor of physics at the University of Budapest. Following World War II, he worked for two years at the Royal Institute of Technology in Stockholm, and since 1949 he has been Senior Research Fellow in Psychophysics at the Psycho-Acoustic Laboratory of Harvard University. With this training and experience he brought to bear on the subject of psychoacoustics a solid foundation in physics as well as an almost unparalleled personal skill in experimentation.

For those who know and care little about the technicalities of audition, the book is still worthy of examination simply as a study of a method of scientific approach and a style of scientific thought and exposition.

Georg von Békésy has been an indefatigable experimenter of unusual technical skill and endowed with unusual insight. His papers, assembled in this book, constitute a clear running record of what he saw, what he measured, what difficulties he encountered, and how they were circumvented. The approach, which employs the methods of physical acoustics, of anatomical dissection, of electrophysiology, and of psychophysics, is well summarized by Békésy himself in the opening paragraphs of his introductory chapter.

One form of approach is the theoretical approach, namely, to formulate the problem in relation to what is already known, to make predictions or extensions on the basis of accepted principles, and then to proceed to test these hypotheses experimentally. Another, which may be called the mosaic approach, takes each problem for itself with little reference to the field in which it lies and seeks to discover relations and principles that hold within the circumscribed area. Many of the experiments to be described in this book employed the mosaic approach, but when considered in connection with other experiments carried out subsequently by the author and by many other workers in this field, they take on a broader meaning and perhaps now may be woven into a more general structure.

Another significant passage concerning the type of subjects to be used in psychophysical experiments is worth quoting verbatim.

In psychological experiments an important matter is the type and number of subjects. These two are usually related, and the investigator can use a small number of highly trained subjects for extended periods or a large number of slightly trained subjects for brief periods of time. Both procedures have their uses according to the problem at hand. When basic phenomena have to be explored and important variables identified, it is the best to use subjects that are trained as thoroughly as possible. A trained subject will show only limited variability, largely because he is able to keep his attention on the phenomena under investigation and to ignore irrelevancies. On the other hand, it may be of interest to discover the range of capacities in a population, and then it is obvious that a great many subjects are needed.

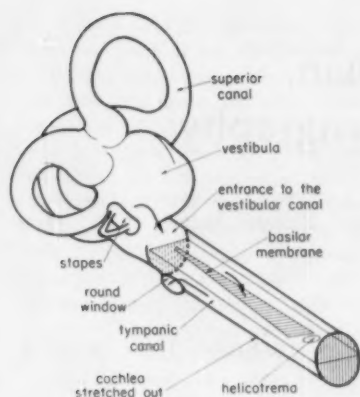
Békésy, being concerned with "basic phenomena," confines himself to a few highly trained subjects. Other investigators may complain that they are unable to confirm the subjective reports of his subjects concerning, for example, the size, the location, and the 'pitch' of the sensation evoked by a particular vibratory stimulus. This is an old difficulty in psychology. Some may question the 'reality' or the generality of the phenomena in question because they do not seem to be the common experience of every observer.

The reviewer regards this situation as comparable to the difficulty that the average observer has in repeating Békésy's acoustical measurements, his microdissections, and his electrophysiological explorations. Only an experimenter who will avail himself fully of the technical facilities of micromanipulators, stroboscopic illumination, vibrating electrodes, specially designed hand-rests, automatic recording, and so on can possibly make similar observations. They lie beyond the range of ordinary unaided sensory perception and ordinary manual dexterity. Still we need not hesitate to use the microscope, the micromanipulator, and the amplifier to extend or refine our senses and our skills. We need only to insist that the experimenter guard most carefully against the artifacts of his methods. He should detect artifacts when they appear and reject the experiments or observations that are contaminated by them. The remaining experiments are the only ones that count. A thousand failures by bungling, unskilled experimenters who do not have the necessary technical equipment in the first place and also the patience to develop the necessary skill in using it do not disprove or invalidate a single well-controlled observation by a master experimenter. We accept this philosophy in physics, in anatomy, in physiology. It should be valid also in psychology—and the trained observer who can "ignore the irrelevancies" is in many respects comparable to the soundproof room or the stable shielded amplifier as a necessary tool for certain types of investigation. His observations and reports are invaluable as indications of what the human nervous system can do at its best under favorable circumstances. These are basic phenomena. It is quite another problem to discover what the average observer can do or what happens under less favorable circumstances.

So, in mosaic fashion, Békésy proceeds from one observation to another in search of basic phenomena. When he meets with a limitation of his method, he describes the difficulty or explains the limitation, stopping there and turning to another experiment.

The next observations are related to the previous ones but Békésy is more intent on making the new observations than he is in discussing exact relations between one experiment and the next. A single paper may actually contain twenty or thirty different experiments, each with a brief account of what was





BÉKÉSY'S DIAGRAM of the Inner Ear  
with Cochlea Unrolled

done and a graph or figure to illustrate the result. He never gives tabulations of data but simply a single number or a single graph which, in his opinion, represent the best value or set of values for the measurements that he has made. His personal judgment as to whether the necessary conditions of measurement have been fulfilled takes the place of statistical averages and standard deviations. He supports the initial observation not by replication but by devising other experiments that approach the same problem by other methods. This statement does not imply that Békésy does not repeat his experiments. It is only by repeating observations many times that he comes to recognize the artifacts and learns which are the really good experiments to be selected for presentation.

Békésy says:

The writer has found it profitable to carry on a series of experiments for a month or so beyond the point where everything seemed complete and ready for publication. Almost invariably this somewhat aimless working with the equipment has brought out new aspects of the problem and rounded out the final concepts. Sometimes it has led to new kinds of observations.

It is particularly difficult to determine when a negative experiment should be concluded. It is hardly ever possible to prove the negative of a proposition, and it has come to be rule of thumb to bring a piece of work to a close after negative results have been obtained ten times in succession.

Békésy makes the further delightful comment concerning the detection and rectification of errors:

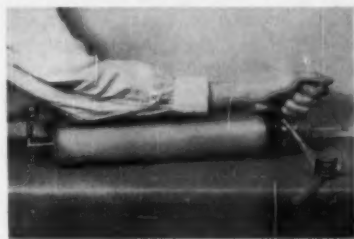
Another way of dealing with errors is to have friends who are willing to spend the time necessary to carry out a critical examination of the experimental design beforehand and the results after the experiments have been completed. An even better way is to have an enemy. An enemy is willing to devote a vast amount of time and brain power to ferreting out errors both large and small, and this without any compensation. The trouble is that really capable enemies are scarce; most of them are only ordinary. Another trouble with enemies is that they sometimes develop into friends and lose a good deal of their zeal. It was in this way that the writer lost his three best enemies.

**P**ROBABLY as disconcerting to many readers as the absence of statistics will be the absence of summaries, either at the end of individual papers or as summary chapters at the end of the major divisions of the book. Actually the present reviewer has tried to write brief summaries of some of Békésy's original papers for his own use and reference but has found it almost impossible to do so. There are so many observations, so many phenomena, each requiring specification of the particular method or circumstances, that it is extremely difficult to do more than write a topical summary or pick out one or two key observations from each chapter.

The reviewer does not wish to imply that Békésy is unaware of general principles and the value and importance of deriving such principles from observations where this is possible. There are several cases in which Békésy actually has made an important generalization and has fortified it systematically with a wealth of experimental observations. One example is his demonstration that the traveling wave patterns on the basilar membrane are a necessary consequence of familiar principles of resonant vibration. The appearance of a traveling wave pattern instead of more familiar patterns is due to a gradation of particular physical properties along the basilar membrane. He points out clearly the importance of gradation of stiffness, as measured by volume displacement, in determining this manner of vibration.

He also shows how, in a variety of situations, traveling waves are not the exception but are the rule. In these discussions Békésy comes closer to preferring the theoretical to the mosaic approach than he does anywhere else in his writings.

Another general principle which he derives is the 'funneling' action of the nervous system. He recognizes clearly that sensations do not bear simple linear relationships to the stimuli that are applied to our sense organs but that, depending on complicated relationships in space and in time, the input from certain sensory areas may be suppressed while that from neighboring areas may be enhanced. Stimulation of one area of the skin, for example, may increase the intensity of a sensation which is localized, nevertheless, in another area that is simultaneously stimulated. Békésy goes as far as he can to relate the sensations to spatial and other attributes of the stimuli but he recognizes clearly that many phenomena in psychophysics require explanation in terms of interactions within the central nervous system. Here he adopts the point of view of the physicist and the psychophysicist. He controls his stimuli with the greatest of care and he employs trained observers to give meticulous accounts of the



BÉKÉSY'S MODEL

Békésy's mechanical model for demonstrating the traveling-wave theory of tonal pitch in terms of cutaneous sensation. A plastic tube, with the plastic membrane adjusted to match the plasticity of the inner ear's basilar membrane, is filled with water, to which a piston at the end delivers different frequencies. The place of maximal displacement is felt cutaneously, when the skin of the forearm (with or without a sleeve on the forearm) is placed on the tube. The higher the delivered frequency, the nearer is the cutaneous sensation to the piston.

sensations which they experience as a function of his changes in the parameters of stimulation. He does not undertake to speculate, beyond his area of observation, in terms of nerve impulses or of particular theories of synaptic action or neuronal interconnections.

**E**XPERIMENTS IN HEARING is beautifully printed and it contains all of the multitude of graphs, line drawings, and half-tones that illustrated the original papers. Unfortunately the reproductions of the half-tones are not so good as the originals, for it is technically impossible to avoid such degradation. Some of the photographs of experimental equipment suffer particularly in this respect. The index is very helpful.

Perhaps the most serious disappointment concerning the book is its high price (\$25.00), which may mean that the book will not be so widely read as it deserves. The book is obviously expensive to produce and the publishers may have been led to believe that its appeal will be narrow. The present reviewer hopes that this judgment will not be vindicated. Certainly for all those who are working or who will work during the next fifty years in the fields of psychoacoustics and of bioacoustics the volume will be an imperative necessity, and it will continue as a mine of factual information. Every wise experimenter in any field that Békésy has touched will consult the book with care to be sure that Békésy has not already done the experiment which he has in mind! Even if Békésy has not done the exact experiment, he is likely to give some extremely valuable relevant information and some clear statements of technical precautions which are necessary for the proper conduct of the experiments. Thus the book has a secure place among the classics of experimental psychology.



*To doubt things which are now believed without any investigation whatsoever, that's the point everywhere.*

—GEORG CHRISTOPH LICHTENBERG

## German Psycholexicography

Friedrich Dorsch

*Psychologisches Wörterbuch.* Hamburg: Richard Meiner; Bern: Hans Huber, 1959. Pp. viii + 488. DM 38.

Wilhelm Hehlmann

*Wörterbuch der Psychologie.* Stuttgart: Alfred Kröner, 1959. Pp. viii + 575. DM 15.

Kurt von Sury

*Wörterbuch der Psychologie und ihrer Grenzgebiete.* Basel—Stuttgart: Benno Schwabe, 1958. Pp. iv + 234. S. Fr. 15.

Reviewed by JOSEF BROŽEK

*Dr. Brožek was born in Czechoslovakia, PhDed at Prague, and is now Chairman of the Department of Psychology at Lehigh University. He is CP's Consultant for Slavic books, and he loves dictionaries. When he was twelve years old he saved his lunch money to buy a Serbo-Croatian primer of a thousand words. He now owns 50 linear feet of dictionaries when the books stand on edge, and, if the growth curve be extrapolated, will own 100 feet at age 72, which is still a long way off.*

**I**N the United States the compiling of lists of psychological terms has never been a favorite sport, if we ignore the glossaries appended to elementary textbooks. In recent years we have had the dictionary edited by H. C. Warren (1934), the "new" dictionary of P. H. Harriman (1947), and the "comprehensive" dictionary of psychological and psychoanalytical terms by H. B. and Ava C. English (1958). Not only can we count the current American dictionaries of psychology on the fingers of one hand but we have one or two fingers left over. In contrast the Germans have been hard at work in psychological lexicography. They have published some ten dictionaries within the last fifteen years alone.

Of the three dictionaries with which

we are concerned here only Hehlmann's work is a brand new addition to the psychological literature, nor is this author a novice at the lexicographic game. The series of Kröner's Pocket Editions, famous for its dictionaries (e.g., *Philosophisches Wörterbuch*, initiated by Heinrich Schmidt), contains also Hehlmann's *Wörterbuch der Pädagogik*.

The portrait of psychology presented by Hehlmann is alive, thoughtful, catholic. He does not attempt to smooth out the persisting rough edges and gloss over the fact that psychology is not yet a unified science. Here follow the outstanding features of this volume.

- (1) Information on the work of individual psychologists, together with their principal publications.
- (2) Fairly extensive entries on the schools and branches of psychology.
- (3) References to the literature accompany all major entries.
- (4) A timetable of significant names and events ordered chronologically (pp. 551-569).
- (5) An appendix on psychological literature (with titles grouped as handbooks and textbooks, encyclopedic works, monographs on some basic problems of psychology, history of psychology, and periodicals).

**D**ORSCH continues a tradition established by Fritz Giese in 1920, whose

slim volume went through five editions. This fact alone is an eloquent testimony of its usefulness to interested laymen and beginners, but times have changed. Nowadays no psychologist can be at home in all fields of this diversified subject, and the teacher, as well as the student, finds it necessary to turn at times to a dictionary. The present, sixth edition is a totally new work, thoroughly revised and tripled in size. Werner Traxler contributed a sizable number of new entries, dealing especially with general psychology and psychological methods. A number of these new terms are loan words taken over from American psychological writings (from *ablation experiments*, *appeal*, *behavioral*, *cafeteria feeding*, *case study method*, *case-work*, *character education*, *inquiry*, up to *molar behavior*, *pattern*, *reasoning test*, *reliability*, *shock absorber*, and *stress*).

Not satisfied with mere dictionary definitions, this lexicon frequently refers the reader to the literature. The compilers' efforts to present the contemporary status of scientific psychology result in a bibliography of some 1200 works by 750-odd authors, a bibliography presented, in a single alphabet, as an appendix. References in the text are made by name (e.g., *Lit.: Brunswik*).

There are two other appendices. The first of these deals with tests—another American loan word, credited to J. McK. Cattell ("mental tests," 1890). The tests are grouped into general categories, the concepts associated with testing are presented in an alphabetical sequence and defined, tests that are historically important or are currently being used in Germany are listed by title and by the name of their author. L. L. Thurstone's *Interest Schedule* is described at some length but his important tests of *Primary Mental Abilities* somehow got lost in the shuffle. Surprisingly, O. K. Buros's *Mental Measurement Yearbooks* (of which the fifth was published in 1959), the best source of information in this field, are not cited.

The third appendix is the *Introduction into Mathematical Treatment of Psychological Problems*, contributed by

Wilhelm Witte. While his intentions were laudable and honorable, this reviewer takes a dim view of the usefulness of the product. It is too abstract, too much concerned with the derivation of the formulas of the basic statistics. Perhaps this opinion is unjust but it would seem that the principal usefulness of this appendix are its references to P. R. Hofstätter's *Introduction to the Quantitative Methods of Psychology* (Munich, 1953) and E. Mittennecker's *Planning and Statistical Evaluation of Experiments* (Vienna, 1952), where the reader will have to seek his salvation in regard to the application of statistical methods.

ONCE he overcame the linguistic barrier, an American psychologist would feel at home in the world of ideas presented both by Hehlmann and, especially, by Giese and his successors. He would, however, need effective shock absorbers if he were to meet von Sury head on. What our American colleague would be likely to consider as psychology is to von Sury "school psychology" (*Schulpsychologie*), surface psychology. While in his second, fully revised, and substantially enlarged edition experimental 'school' psychology has received increased attention, as did also psychopathology, the focus remains clearly on depth psychology (*Tiefenpsychologie*).

Let us cite von Sury directly, "Preferential treatment is given to mythology and to the study of sociocultural development (*Völkerkunde*) since the empathy (*Einfühlung*) into the individual psyche of the contemporary man is possible only on the basis of knowing and understanding the development of mankind's consciousness from the dawn of man's history (*Urzeit*). At this the American PhD in psychology is apt to blink once, twice, yes, maybe even three times. He may decide, right then and there, that von Sury's *Wörterbuch* would represent a questionable investment. That would, however, be a rash decision, for it is here that he would find much for which he would be looking in vain in Dorsch or Hehlmann, should he be looking for it at all. And he would be looking for it, if he were reading much of the contemporary

continental psychological literature. A great deal of thought went into the compilation of this dictionary and, while no dictionary is likely to be a one-man job, von Sury made special effort to obtain the cooperation of a large number of specialists in psychology and its neighboring fields. Only von Sury will inform us that the "Kaspar Hauser complex" refers to the essential isolation of the modern man who, though a member of social groups, is unable in any real sense to relate himself to his fellow men, and that *Kontaktunfähigkeit* is the synonym of the concept. Of the three dictionaries, von Sury's, being most 'un-American,' is likely to contribute most to our literacy in matters psychological. So many concepts are identified with their originators that von Sury becomes the most personalized of these three important contributions to psycholexicography.

## The Dyslexical Difficulties

Knud Hermann

*Reading Disability: A Medical Study of Word-Blindness and Related Handicaps.* Springfield, Ill.: Charles C Thomas, 1960. Pp. 183. \$5.50.

Reviewed by LEONARD CARMICHAEL

who is the physiological psychologist who runs The Smithsonian Institution in Washington, a wise man and already now become one of American psychology's elder statesmen.

FOR more than sixty years, articles have appeared in the scientific literature about persons whose reading and related skills lag far behind what might be expected of them as a result of their intelligence and the educational opportunities that they have had. As Dr. Hermann points out, through the years the 'medical' view has been inclined to attribute this deficiency to a specific abnormality called congenital word-blindness or constitutional dyslexia (impaired

ment of the ability to read), and to consider that the difficulty is inherited. On the other hand, most psychologists, he notes, see this disability as a result of nonspecific reactions to a large series of varied environmental factors and not as an inherited brain defect. This book is largely a defense of the 'medical' and the 'hereditarian' view.

The author of this volume is Knud Hermann, M.D., Chief Physician of the Neurological Unit of the University Hospital in Copenhagen, Denmark. He is a neurologist of long experience, especially in the treatment of individuals suffering from language disorders. The present book, based on the author's Danish volume published in 1955, is a fully revised edition.

Congenital word-blindness, as described, is characterized primarily by difficulties in reading, writing, and spelling. In addition, however, this condition is often complicated by number-blindness and by an inability to read musical notes in a normal way. Specific cases showing combinations of these defects are given in this book. It is noted that this disability typically lasts into adult life in spite of remedial educational measures and, thus, produces unfortunate vocational and social limitations for those who suffer from it.

Evidence is given in the book to suggest that these language difficulties are sex-linked in inheritance. More boys than girls are affected in a ratio of approximately 75% to 25%. Studies of uniovular twins suffering from word-blindness, as compared with binovular twins, show, in the author's opinion, that "heredity is the only decisive factor in causing the condition." Possibly 10% of the general population have reading difficulties in school and, it is noted, the majority of these suffer from some congenital word-blindness.

**T**HE author reviews the nature of Gerstmann's syndrome. This is a constellation of symptoms which takes its name from Josef Gerstmann, an Austrian neurologist. This investigator, in 1924, described a pattern of symptoms which involve peculiar disturbances of the body image, such as the disorientation of a subject in dealing with the right or left side of the body. The con-

dition has sometime been called a parietal syndrome because it is considered as due to a disease of a circumscribed area in the parietal lobe of the cortex.

Dr. Hermann points out that those suffering from word-blindness also not infrequently have marked difficulty in dealing separately with their right and left sides. A statistical study shows that there is greater uncertainty in the ability to discriminate right from left in word-blind individuals than in persons in a control group. This is not mere hemisphere dominance, the author concludes. The directional uncertainty seen in the reading and writing of those with this disability is shown not only by their confusion between the right and left side but also in many common errors, such as reversals, rotations, and disfigurements of words and letters in which symbols are drawn or perceived wholly or partly in the wrong direction. The inverted direction of the stroke in the letter S in certain home-printed signs is taken as an example of this tendency. Since the symptoms of Gerstmann's syndrome and of constitutional dyslexia have so many features in common, Dr. Hermann holds it likely that the fundamental disturbances of the two conditions are quite similar in their brain locus.

The fact that this book with its important thesis can be written in the second half of the 20th century worries this reviewer. How can it be that what the author calls the "medical" and the "psychological" views of dyslexia differ so fundamentally after more than a half century of active study?

As the American authors of the Foreword of this book well say: "It would seem desirable for investigators cooperatively to study poor reading and other language skills as functions of the brain—an organ which is the joint province of the anatomist, the neurologist, the psychologist, the psychiatrist, the geneticist, and the educator." To this the present reviewer can only add, Amen.



*I must begin with a good body of facts and not from principle, in which I always suspect some fallacy.*

—CHARLES DARWIN

## Round Trip Through German Education

Hildegard Hetzer (Ed.)

*Pädagogische Psychologie.* (Handbuch der Psychologie, ed. by Lersch, F. Sandor, & H. Thomae, Vol. 10.) Göttingen: C. J. Hogrefe, 1959. Pp. xviii + 544.

Reviewed by ERNST G. BEIER

*who is Associate Professor of Psychology, Assistant Clinical Professor of Psychiatry, and Director of the Clinical Training Program in psychology at the University of Utah. He was born in Germany and as a boy attended a Landschulheim where the students actually had complete control over the curriculum (and it worked). In the States he has Amherst's AB and Columbia's PhD, has published a raft of articles, and hopes sometime to finish a theoretical book on psychotherapy which might be called Control through Information.*

**A**T first glance the stereotype of German thoroughness will be reinforced by this ambitious undertaking of a 12-volume handbook of psychology. The dust cover announces that the purpose of the handbook is to serve as reference work for all those interested in the progress of modern psychology and to assist the scientist and the teacher with background information and a thorough bibliography. A good many phases of psychology have been covered already: cognition, human behavior, developmental psychology, personality theory, psychodiagnostics, social psychology, clinical psychology, industrial psychology, etc. The present tenth volume is a reference work on educational psychology in its broadest sense, it has 25 contributors in areas ranging from philosophical conceptualization of the educational process to the applied work with exceptional children. Only six chapters are directly related to educational prob-



lems in the school. Each of the chapters has a generous bibliography which includes a good many references to U. S. psychologists.

The coverage is broad but by no means all-inclusive. The American reader will miss an even reasonably thorough discussion of such topics as research on educational methods, on educational selection, on motivation, or even such mundane topics as education of the gifted child. True, all these topics are mentioned in a number of places but to this reader the coverage is unsatisfactory.

While there are many topics covered, the disadvantage of limited space becomes apparent in the superficiality of treatment of the individual topic (a frequent but not a necessary attribute of handbooks). So personality formation, as it is pertinent to education, is covered in 14 pages and learning processes have but 13 pages of systematic treatment. It seems that thoroughness is more apparent than real. The reader who is not too familiar with the literature is possibly misled into thinking that he becomes familiar with the field while, in fact, he is exposed only to a very selective, and often rather opinionated treatment.

ADMITTEDLY, not having read professional literature in German for many years (save for a few research articles), your reviewer was struck with the freedom of the authors to opine, to theorize, to present systems, often with a minimum of lip service to research finding, a freedom, needless to say, for which the author also pays a price.

So Roth, discussing basics of educational theory, poses the interesting problem of *Erziehungsfähigkeit* (education-ability). In his attempt to discover specific capacities of this sort he compares man and beast. He designates the word *Umgebungseingepasst* (fitted to one's environment) to the animal, while the human is said to have an essentially different educational capacity, for he is *weltoffen* (open to seek his environment), a distinction which, while not entirely novel, is highly controversial.

Professor Ruppert, among others, discusses "educational styles" (probably a novel approach to many U. S. educa-

tors) and devises categories which would strike most American readers at least as unusual: an educational style of "objectivity," a style of "care and protection," one of "courage," one of "kindness," one of "respect and care," one of "truthfulness."

Professor Zeitz brings us another problem which we do not find much discussed in American journals: *Denkerziehung* (training how to think and judge). He discusses *Denkerziehung* in terms of motivation, language, play, and others, and convincingly presents the thesis that there are important problems in this area.

Compared to our rather specific tradition of facts and figures, the experience of reading this handbook was both refreshing and painful. The German theorization appears to tolerate more nonsense than we do (see B. F. Skinner's Pigeons in a pelican, *Amer. Psychol.*, 1960, 15, 28-37) and consequently reaps occasionally the reward of an exciting, heuristic theory which helps to advance our knowledge. So, Professor Derbolav defines pedagogical responsibility as an act of bringing about self-actualization of the *educandus* but with a significant difference. The 'educatee' should not only be encouraged to fulfill his own capacities but he must be placed in a situation where he can lose himself in the objective reality of events. This discussion (which differs significantly from historical German educational theory) leads to a model of pedagogical anthropology where biological, psychological, and sociological facts are (hopefully) integrated toward this educational process.

In this visit to our favorite spas in Germany we do not find all our favorite American plumbing and some of the fashions appear foreign; but when we return home our experience makes us pay more attention to details which are not ordinarily part of our daily work.



However incorrect, a theory may still be productive if its terms are operational and its predictions subject to experimental attack. "Bad" theory is not "wrong" theory but untestable theory.

—LEON EISENBERG

## All Roads Lead to Prevention

Ralph H. Ojemann (Ed.)

*Recent Contributions of Biological and Psychosocial Investigations to Preventive Psychiatry.* (Proceedings of the Second Institute on Preventive Psychiatry, State University of Iowa, 10-11 Apr. 1959.) Iowa City: State University of Iowa, 1959. Pp. 181. \$2.00.

Reviewed by ARTHUR J. BINDMAN

who is Chief Mental Health Coordinator of the Massachusetts Department of Mental Health. He has a PhD in clinical psychology from Boston University and a Master of Public Health from the Harvard School of Public Health. He has innumerable responsibilities to the Commonwealth of Massachusetts for activities that concern mental health, is chairman of the Committee on Mental Health Research and Programs of the American Psychological Association and past president of the Massachusetts Society of State Psychologists.

RALPH H. OJEMANN, Professor of Educational Psychology and Director of the Preventive Psychiatry Research Program at the State University of Iowa, has provided rich fare regarding the multidimensional problem of prevention of mental illness. In 1957 he directed and edited an institute, later published as *Four Basic Aspects of Preventive Psychiatry*. This affair was concerned with the definitions of the concepts of "preventive and creative development," the prevalence of mental illness, the effects of education on development, and research in prevention. The present institute attempts to assess the implications for prevention that arise from research in creative mental health, physiology, the social environmental and physical health, the legal system, and genetics. The range of subject matter and the method of presentation are quite varied, as are the remarks of the panel discussants that follow each paper, but the results gen-

erally provide interesting and even exciting reading.

**M.** BREWSTER SMITH opens with a provocative presentation on research in creative mental health (reprinted in revised form in the November 1959 issue of *The American Psychologist*). In contrast to his discussion concerning the difficulties in devising psychological research methods to tackle the vague multiple variables of mental health and personality development, one is confronted with an extensive summary of the more precise findings of physiological research and their implications for prevention of mental illness as expounded by JOHN LOVETT DOUST, a Toronto psychiatrist. This paper leaves the suggestion that current work in community mental health, with its emphasis on sociological and psychological elements, may overlook the possible physiological traumata which patients have endured in their fetal and infantile development, and which may be the basis for later psychiatric disabilities.

LAWRENCE HINKLE's longitudinal studies on healthy vs. unhealthy individuals would seem to agree with Lovell Doust's premise that one's basic physiological pattern is important in predicting later functioning. Physically and mentally healthy persons are found to be less creative and productive, whereas the unhealthy are more creative. This rule suggests that physiological traumata, of a certain degree and at certain periods, may actually stimulate creative output instead of reducing it. There is also the subtle inference that the goal of early prevention and adjustment that is directed toward mental health may possibly lead to later mediocrity.

HAROLD BERMAN of Harvard Law School makes a plea for research in comparative legal systems contrasting the Soviet and American systems. He put forward the novel thesis that a more flexible legal system in keeping with modern personality theory and psychiatric knowledge would make the law a more useful tool for education, training, and research in personality development. This view suggests a need to find out how the legal system affects the culture and in turn the developing

individual. The papers are completed by RALPH RABINOVITCH's remarks on genetics which were presented orally and too condensed in summary in the proceedings to be reviewed adequately here.

This institute leaves one with the feeling that each participant is approaching prevention of mental illness through a separate highway. Only in the discussions following each paper (which are well edited and make worthwhile reading) does one see the possible network of secondary roads which can begin to connect the main highways. Per-

haps a weakness of the volume is its lack of a concluding, integrating summary, but the role of the summarizer would not be easy, for the elements are quite diverse. These proceedings are rich in new ideas, in an area where the concepts are still vague and difficult to grasp. Here at any rate is challenging reading for the advanced community mental-health researcher and practitioner. The book should also stimulate the less experienced who are interested in applying their abilities to an area of great scope and future promise.

## Anxious First-Borns

Stanley Schachter

*The Psychology of Affiliation: Experimental Studies of the Sources of Gregariousness.* (Stanford Studies in Psychology, I.) Stanford, Calif.: Stanford University Press, 1959. Pp. 141. \$3.75.

Reviewed by JOSEPH VEROFF

*Dr. Veroff is a Study Director at the Survey Research Center in the University of Michigan and also Assistant Professor of Psychology there. He has a background of Wesleyan and Michigan, training with D. C. McClelland and J. W. Atkinson, from achievement motivation to affiliation to power motivation. With G. Gurin and S. Feld he is the author of a recently published book called Americans View Their Mental Health in which, among other things, he hopes to show something about national character through the survey technique.*

**N**OT often in social psychology does a researcher discover something, or point to relationships that are not readily apparent to a keen observer of the social world. Indeed a social psychologist has a difficult enough time clarifying the parameters of common sense. To ask him for a completely new insight, to ask his empirical world to speak to him in a language never heard before, seems to be a naive request.

Every now and then in social psychology, however, experiments are performed that do speak to the scientist. A discovery of this import seems to

have emerged from the work of Stanley Schachter and his colleagues at the Laboratory for Research in Social Relations of the University of Minnesota on the conditions for the instigation of affiliative tendencies.

Their studies of social comparison as a means of handling ambiguity in a person's cognitive field have for the most part yielded results which are intuitively sensible and straightforward. And then a result was uncorked that seems to be a real discovery. An old chestnut in social research, ordinal position in the family—one that has been roasted over and over until it seemed doomed to a dead storage bin—suddenly emerges as one of great consequence. Schachter has found that, when anxious, people who are first-born express more interest in being with others than are those who are later-born. Because Schachter has been devoted to a field-theoretical preference for contemporaneous variables in research and theory, he might well have chalked this discovery about a long-term dispositional variable up to chance; but evidently the result was too compelling to be ignored. Data were talking to a social psychologist.

Schachter tells of this discovery along

with other experimental findings on the conditions generating the desire for human contact in *The Psychology of Affiliation*. For this work he was recently awarded the Socio-Psychological prize of the American Association for the Advancement of Science.

The award is justified, for the discovery is significant. The work is careful, and the presentation is lucid. Although the book is a far cry from the suggestion of its title—much about man's affiliative world was not considered in this short report—yet, within the limited dimensions of affiliation here considered, there is a neatly established integration of diverse research material that makes the work seem complete within itself.

To indicate the generality of the relationship between ordinal position and affiliation tendencies in the face of anxiety, Schachter departs from small group studies in one chapter and turns to unpublished survey data. The results that he presents are absorbing in their own right: first-borns or only children become more committed to psychotherapy; they are less prone toward alcoholism; 'ace' air-force fighter pilots are likely *not* to be first-born or only children. Nevertheless it may be an oversimplification to state that these are special cases of the general thesis that first-borns have stronger dispositions to use affiliative means of handling their anxieties. For example, while psychotherapy may represent a dependent and thus an affiliative relationship with another person, one initiated to alleviate the anxiety, at the same time it may represent a *retreat* from coping with other affiliative relationships that are anxiety-producing. If first-borns and only children have more problematic affiliative ties generally, they might very well find psychotherapy appealing.

Alcoholism too is a complicated symptom; characterizing it merely as a withdrawal from social means of handling anxiety seems too simple. There has been considerable speculation about the alcoholic's strong need for dependence. Schachter would call the alcoholic independent. A more penetrating analysis of alcoholism might reconcile these differ-

ing views, but here Schachter's view lacks depth.

The use of evidence from the outside real world to support laboratory results should not be discouraged, yet survey data treated casually can only be suggestive. Indeed Schachter is well aware of this point.

So much for the discovery in *The Psychology of Affiliation*. The rest of the book reflects a group dynamicist's recent concern about social comparison as a way of evaluating the self. In the experiments Schachter considers, social comparison is thought to be a way of getting help in evaluating ambiguous drive states. When anxious, when hun-



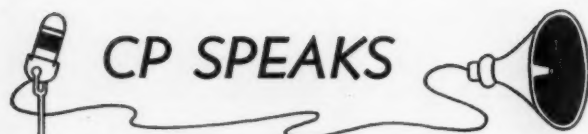
STANLEY SCHACHTER

gry, his subjects wanted human companionship. The affiliative tendency in the experiments is defined as *choosing* to be with people rather than alone for a brief period before anticipated experimentation. This choice was measured by checking a questionnaire alternative. Such a manner of measuring the affiliative tendency differs from observing affiliative behavior in the raw—being with other people, approaching and having physical contact with them, engaging them in conversation. It is unlikely that there is a 1:1 correspondence between these natural behaviors and Schachter's experimental measure. To rate self-consciously how much one wants to be or not to be with another person is a peculiar *social* act because it seems more highly cognitive than even Schachter would like it to be.

It would seem, therefore, that this

conscious affiliative decision can be reinterpreted as an act of conforming to the perceived value of the experimenter—social interaction. Perhaps the very name *Laboratory for Research in Social Relations* implies to subjects that the experimenter expects or values social interaction per se. With this interpretation of the measure one could explain the obtained results as support for an hypothesis that higher drive states increase conformity to the expectation of the experimenters. Also, if, as Schachter suggests, first-borns are more influential than later-borns, they should conform to the experimenter's affiliative value under anxiety even more than other groups. Perhaps this is all far-fetched, yet one should consider the possibility that the artificial experimental measures may be getting at something quite different from the affiliative tendency as it is usually considered. Natural experiments or less self-conscious measures should be used in future studies to corroborate the general finding.

Reading Schachter's narrative of how he went from the problem of social comparison to hypotheses about birth order and then back to the problem of social comparison can serve as an excellent model for experimental social scientists in their halting quest for scientific knowledge. Schachter recognized alternative interpretations of his data. Indeed he eagerly anticipated them when he could banish them with further experimental evidence. Where there are limitations in his work, where his interpretation of the data is not the sole one and there is no further experimental evidence with which to weigh the interpretation, then he still calls attention to this fact. For example, in some studies he notes clearly that the relation between ordinal position and affiliative tendency can also be attributed to a potential relationship between ordinal position and *level* of anxiety, which in turn is related to the affiliative tendency. It is that kind of vigilance, together with his experimental knack of following through where vigilance directs him, that makes this book so solid a contribution to social psychology.



### WHO THE AUTHOR IS

THE readers of *CP* want to know who is the author of the reviewed book and who is the reviewer. Here is the history of these two matters in *CP*'s practice right up into the immediate future.

When *CP* began in 1956 it said nothing personal about the reviewers and usually the reviewers said little about the author. Readers complained that they did not know all these strange reviewers. (Remember that *CP* had 637 different reviewers in its first four volumes.) So in 1957 *CP* began asking reviewers about themselves and printing the italicized paragraphs at the start of the reviews, paragraphs that *CP* composed from the information sent it, and which validated, as well as could be, the right of the reviewer to speak his mind about the book.

Then the complaints stopped, except from a few seclusive persons who felt their privacy threatened. To its surprise *CP* discovered that it had inadvertently created a small coin with which to pay the reviewers, for it became easier now to get reviewers as the prestige of writing for *CP* and of being described in it increased. There began, however, a new set of complaints: *CP* tells more about the less important reviewer than about the more important author. Moreover, reproducing the author's picture is confusing, for you look at it while you read about the reviewer, and you may go away thinking that the reviewer was a happy viscerotone soured by indigestion when he was really a caustic cerebrone all the time. Always you notice your needs more than your possessions, and forgotten now was the old need for information about reviewers, since it had been supplied. People clamored instead to be told about the books' au-

thors. Even from England the complaint came, and everyone knows that the British usually accept hardship without wincing.

So *CP* began to put pressure on the reviewers to incorporate more about the authors in their reviews. It tried to shame them, asking whether they would wish to have *CP* say more about them than they said about their authors. It gave them advice. Consult the jacket. Use the biographical sources at your disposal. Ask the publisher. Best of all ask the author who he is, and get his address from his publisher if you have to. The author will like to tell you about himself. *CP*'s office might have done this work, but it would have needed more staff, and *CP*'s subscriptions still do not pay for *CP*. It was the reviewer's job and it still is, but the old admonition did not work. Perhaps one reviewer in three accepted the instruction, found out about the author, and integrated the author's personality, experience, and status neatly into the review. As to the others, *CP* concluded that they were not apt at biographical allusion, that even when they had the data they did not know how to work it in.

*CP*'s current device is, therefore, to ask the reviewers to furnish information about both the authors and themselves. The reviewer gets a blank, with space for data about the author at the top and about himself at the bottom—with permission to use the back or other pages if there is too little room. Then *CP* itself will write up both author and reviewer information in the italicized paragraph at the beginning of the review. That ought to work. Let's see.

This change will, of course, be gradual, as the new reviews overtake the older ones. At any rate *CP* is all optimistic again. Hope springs eternal . . .

### PEER REVIEWERS

PEOPLE just aren't syllogisms. They want both sides of the moon at once, whereas all they get is one side, half the time, if it isn't cloudy. The author struggles with his book writing it and rewriting it, watches impatiently while it gets made into printed words between covers, and then waits anxiously for a review—or reviews. If *CP* picks a critic who reviews the precious work unfavorably, then the author reminds himself—or *CP*—that *CP* is a monopoly (it isn't) and has cheated him out of his meed of appreciation. If the reviewer is not the author's peer, is less distinguished, is bright perhaps yet young, then also the author feels cheated. If the reviewer is both young and unfavorable—oh, dear!

Well, take a group of peers, who write books and review them. It seems simple. If each author, for every book he writes, will review but one other book, the need is satisfied. They all survive by taking in one another's washing. But it may be that half the authors prefer writing to reading, and reading to writing about what they read. That means that the other authors must write two reviews for every book they have written themselves. Yet who is going to be satisfied with only one review of his opus carissimum? He wants at least three (and shouts with glee if he gets more). So that is how it works out. Let him who has written a book review six other books by his peers and then hope for three peers to review what he himself has written. He is not likely to get them, but then he is not likely to have written the six reviews.

Reviewing needs motivation, a commodity that editors cannot always command in others. If you want to be reviewed by a peer, be clear, interesting, half right and half wrong. That may produce motivation. If you must be all right, then you may have to content yourself with less distinguished attention.

### BOOKS TO COME

RIGHT after New Year's, Holt, Rinehart and Winston—it isn't just "Holt" any more—will publish Horace B. English's *The Dynamics of Child Development*, a successor to his *Child Psychology*, ten years earlier, and a dif-



ferent kind of book. This book is written for teachers and prospective teachers. It is not meant for undergraduates who want a course in child psychology to supplement their courses in other fields. Parents are allowed to read it, but it is not aimed at them. It deals with the dynamics of child development, just as the title says; it says how and why the events of maturation take place. It tells the teachers the facts, not attempting to justify them with the basic details of research. When it cites an experiment, it cites it to make a point clear, not to make it convincing. It speaks with authority—or at least that's what CP hears about it now.

THE latest facts and thoughts about leadership are about to be published as a symposium by twenty-three symposiasts interchanging ideas—that's what the report says—at Louisiana State University. The original promoters and now the editors are Luigi Petrucci and Bernard M. Bass, the publisher is Holt, Rinehart and Winston, and the title is *Leadership and Interpersonal Behavior*. Some of the participants got to wondering whether leadership is a psychological phenomenon after all. This is a second symposium which follows a first: *Person Perception and Interpersonal Behavior* with Tagiuri and Petrucci as editors (Stanford Univ. Press, 1958; CP, June 1960, 5, 192–195).

—E. G. B.



We see . . . that the theory of probabilities is at bottom only common sense reduced to calculation; it makes us appreciate with exactitude what reasonable minds feel by a sort of instinct, often without being able to account for it. . . . It is remarkable that [this] science, which originated in the consideration of games of chance, should have become the most important object of human knowledge.

—P. S. LAPLACE



## Psychology's Paperbacks

By EDWARD J. MURRAY

*Dr. Murray is Assistant Professor of Psychology at Syracuse University, for the last two years an associate of Calvin Hall's, from whom he now takes over CP's occasional review of paperbound books in psychology. CP had many requests asking that this department be continued when Dr. Hall relinquished it. Dr. Murray's progress has been from Keller and Schoenfeld at Columbia, to Koch and Zener at Duke, to Miller and Dollard at Yale, and then to clinical training in the Army, an internship, his own analysis, and research at Walter Reed Hospital, the whole gamut from conditioning to ego-involvement, and thus the perfect variety for an assessor of the paperbacks which have always expounded Freud but now reach down into experimental psychology.*

PAPERBACK books are rapidly becoming a major factor in education. Every important publishing firm is entering the soft-cover field and many university presses as well. Important newspapers periodically review paperbound books. Both the New York Times and the New York Herald Tribune devote annual book sections to reviews of these books. Foundations are sponsoring surveys of paperback use on the secondary-school level and this is a sure sign of progress.

One foundation-supported project of interest to psychologists is the Science Study Series of the Doubleday Anchor books. This series contains a number of excellent paperbacks as part of a fresh approach to the teaching of physics. Two of these are on audition and are reviewed below. Although designed for secondary schools, the level of technical writing is quite suitable for the average undergraduate major in psychology. Let us hope for more of these books with a psychological slant, especially one on vision. The University of Michigan publishes a similar series called the Ann Arbor Science Paperbacks but these are written on a somewhat simpler level.

These science series books enable this department of CP to have a listing of Sensation and Perception for the first time. Perhaps that is a sign of the times. More and more paperbound books in areas other than psychoanalysis and abnormal psychology are appearing. Classics by William James, Wolfgang Kohler, and Norbert Wiener are available. Still, too many books on psychological topics are written by physicists, biologists, sociologists, psychiatrists, etc. Psychologists had better write more paperbound books and have their hard-cover works reprinted or the field will be pre-empted.

On a simple frequency basis, psychology's leading paperbound publishers are Penguin and Grove. Penguin's Pelican series is the aristocrat in the area. There are books on memory, thinking, and comparative psychology but the range includes psychical research, psychiatry, and many other fields. The Pelicans lean toward British authors. Best of all, their books are inexpensive. The Evergreen series by Grove is clinically oriented. Included are books by psychologists and psychiatrists on diagnosis, treatment, and case material. The volumes tend to be fat and expensive.

Several other publishers should be noted. Doubleday's Anchor series is rapidly becoming significant. The series includes some of the more scholarly psychoanalytic books, the Science Series mentioned above, and others. The books are relatively inexpensive and in good taste. Mentor continues to put out good, cheap books, which have always stressed cultural processes (e.g., Mead and Benedict) and now include good books on psychology. Pocket Books tends to popularizations. Two other publishers, Meridian and Dover, have some fine books on psychology, particularly those with philosophical implications. All of these have had five or more titles reviewed in CP. Altogether 34 publishers have been represented.

Names and addresses of publishers of books reviewed in the present article

are listed at the end. A simplified system of noting the price range is used in this review. An asterisk is placed in front of those books selling for one dollar or less. A little more than half of the books reviewed fall in this category.

### Sensation and Perception

- \*VAN BERGEIJK, W. A., J. R. PIERCE, AND E. E. DAVID. *Waves and the Ear*. (Anchor, S 9.) Doubleday, 1960. Pp. 235. \$.95. Original.

This book on hearing was written by three Bell Telephone Laboratory scientists: a zoologist, a physicist, and an engineer. The nature of sound waves, the decibel system, loudness and pitch discrimination, the anatomy and physiology of the ear, brain mechanisms, and speech are covered. Nearly every auditory thing a psychologist would want is in it. A colleague of mine is using this book for the audition section of an undergraduate course in Experimental Sensation and Perception. Index.

- \*GRIFFIN, D. R. *Echoes of Bats and Men*. (Anchor, S 4.) Doubleday, 1959. Pp. 156. \$.95. Original.

How do bats manage to dart about dark caves catching insects on the wing? The author, in collaboration with Robert Galambos, performed the classic experiment showing that they orient themselves by the echoes of their own high frequency chirps. In addition to the behavior of bats, birds, and fish, this book examines the principle in sonar, radar, and the locomotion of the blind. Although not as detailed as the author's *Listening in the Dark*, this presentation might be used in undergraduate experimental and perception courses. With this book and *Waves and the Ear* one could teach a course on audition. Index.

- VON BUDDENBROCK, W. *The Senses*. (AAS 503.) Univ. Michigan, 1948. Pp. 167. \$1.95. Reprint.

A zoologist's nontechnical account of eight or so senses. Stronger on physiology than psychophysics. The emphasis on the adaptive functions of the senses might make this book more valuable in a general course than in a specialized one. Index.

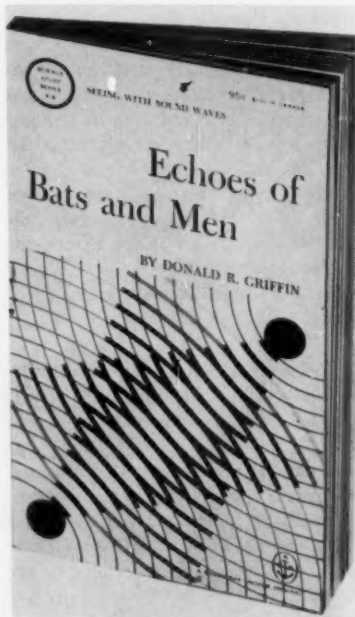
- BUECHARDT, EDUARD. *Light*. (AAS 504.) Univ. Michigan, 1958. Pp. 201. \$1.95. Reprint.

This does not fulfill the need for a paperback book on vision. It is entirely on the physics of light. Might be useful background reading for students with poor preparation for the experimental course. Index.

### General and Theoretical Psychology

- KOEHLER, W. *The Place of Value in a World of Facts*. (MG 19.) Meridian, 1959. Pp. 418. \$1.95. Reprint.

This classic statement of the phenomenological position was first presented as the William James Lectures in 1934. It is a critique of positivism in psychology, biology, and physics for failing to account for values, purpose, and other aspects of the phenomenal world. Index.



- \*KOEHLER, W. *Gestalt Psychology*. (Mentor, MD 279.) New American Library, 1959. Pp. 222. \$.50. Reprint.

It is good to see another of psychology's classics in a low-cost paperback. This is still the best introduction to Gestalt Psychology I know of. For courses in theory, history, or systems. Index.

- NORTHROP, F. S. C. *The Logic of the Sciences and the Humanities*. (M 71.) Meridian, 1959. Pp. 402. \$1.45. Reprint.

One of the main points made by this well-known philosopher is that different methods may be appropriate to the several disciplines at various stages of development. Areas dealt with include physics, biology, economics, social science, and the humanities. Nothing on psychology as such. Requires some background in philosophy of science. Index.

- \*SYMPOSIUM. *A Short History of Science*. (Anchor, A 180.) Doubleday, 1959. Pp. 138. \$.95. Original.

Sixteen short contributions by a group of British historians, philosophers, and scientists. Deals with Copernicus, Harvey, Newton, Pasteur, and Darwin. Nothing on the behavioral sciences. More descriptive and less analytical than the Northrop volume. May be useful for rapid background reading. No Index.

### Psychoanalysis

- \*FREUD, S. *Beyond the Pleasure Principle*. (FC49.) Bantam, 1959. Pp. 121. \$.50. Reprint.

In the 1920s Freud drastically revised his theories of personality and motivation. This book marks the beginning of this change with the introduction of the death instinct. No other concept has caused as much controversy in the psychoanalytic group. Students have a fine time discussing this theory. Index.

- \*FREUD, S. *Group Psychology and the Analysis of the Ego*. (FC58.) Bantam, 1960. Pp. 108. \$.50. Reprint.

The second major work in Freud's theoretical revision was this book on the individual in the group. Crowd behavior, hypnosis, falling in love, and authoritarian group membership are related to identification and early family relationships. Index.

- DE LASZLO, U. S. (Ed.) *Psyche and Symbol: A Selection from the Writings of C. G. Jung*. (Anchor, A 136.) Doubleday, 1958. Pp. 363. \$1.25. Original.

Much of Jung's thinking revolves about archetypes or symbols of man's deepest instincts. He searches for these symbols in dreams, myths, alchemists' writings, and religious rituals. This volume brings together material on symbols from Jung's widely ranging writings. It is not easy reading. No Index.

- RANK, O. *Beyond Psychology*. (T 485.) Dover, 1958. Pp. 291. \$1.75. Reprint.

On the eve of the Second World War, Rank wrote that psychological theories are intellectual attempts to organize existence. They are similar to, and influenced by, philosophical, political, religious, and other rational structures. Like these other systems, psychology fails to accept the irrational part of human nature. No Index.

- ADLER, K. A., AND D. DEUTSCH. (Eds.) *Essays in Individual Psychology*. (Evergreen, E 180.) Grove, 1959. \$2.95. Original.

An interesting collection of theoretical and clinical papers by first and second gen-

eration students of Alfred Adler. Together with the Ansbachers' book, this provides good coverage of individual psychology. Adler's ideas appear to be very much alive especially within a group of psychologists in the New York City area. No Index.

## Personality and Abnormal Psychology

\*HALL, C. *The Meaning of Dreams.* (D287.) Dell, 1959. Pp. 256. \$35.

An excellent book on dreams by this sophisticated Freudian. Based on Hall's empirical studies as well as his cognitive theory of dreams. Topics include dream symbols, interpretation and themes such as the human triangle. Well written, this book is liked by students. Appendix and Index.

ROCHE, P. Q. *The Criminal Mind.* (Evergreen, E 176.) Grove, 1958. Pp. 299. \$1.95. Reprint.

The author, a distinguished psychiatrist, argues that the problems of psychiatric testimony in criminal cases can be traced to the philosophical foundations of the two fields of law and psychiatry. Psychiatry is based on the language of science while law is derived from religion and ethics. Psychiatry can make better contributions before and after trials than in formal testimony. Index.

DE ROPP, R. S. *Drugs and the Mind.* (Evergreen, E 218.) Grove, 1960. Pp. 310. \$1.95. Reprint.

A biochemist's account of the psychological and physiological effects of mescaline, marihuana, alcohol, lysergic acid, tranquilizers, and others. Can man, or should man, develop a happiness drug with no unpleasant side-effect? Well written, learned, but not technical. Index.

\*ROBERTIELLO, R. C. *Voyage from Lesbos.* (T397.) Avon, 1959. Pp. 159. \$35. Reprint.

An interesting account of the psychoanalytic treatment of a homosexual woman. The homosexuality is shown to operate as a defense against heterosexuality which arouses anxiety because of early oedipal competition. For the abnormal or personality course. Poor cover design. No Index.

\*GREENWALD, H. (Ed.) *Great Cases in Psychoanalysis.* (F333K.) Ballantine, 1959. Pp. 256. \$50. Original.

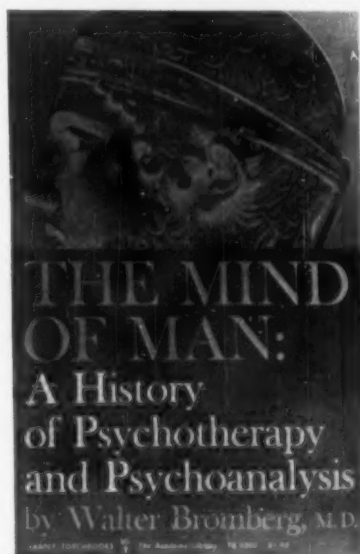
This versatile book contains case studies by Freud, Abraham, Ferenczi, Melanie Klein, Reik, Lindner, Jung, Adler, Karen Horney, Sullivan, and Rogers. The editorial notes trace a development from a biological, early trauma, and detached-

therapist orientation to a social, wholistic, and therapeutic-relationship approach. May be useful in courses on abnormal psychology, adjustment, and personality theory. However, many of the cases seem too brief to be of great value in advanced graduate seminars or psychotherapy training. No Index.

## Clinical Techniques

LINDZEY, G. (Ed.) *Assessment of Human Motives.* (Evergreen, E 204.) Grove, 1958. Pp. 273. \$1.95. Reprint.

Major theoretical issues as well as measurement problems are discussed by Kelly,



Festinger, Klein, Schafer, Janis, Murray, Cattell, and Allport. This book is based on a series of lectures at Syracuse University in 1957. Gardner Lindzey summarizes the contributions around such questions as "How important are conscious as opposed to unconscious motives in understanding human behavior?" Index.

ABT, L. E., AND L. BELLAK. (Eds.) *Projective Psychology.* (Evergreen, E 169.) Grove, 1959. Pp. 485. \$2.95. Reprint.

A low-cost book on projective techniques is sorely needed. This collection of papers only partially fulfills the need because of uneven coverage. For example, there are papers by Lindner, Munroe, and Harrower on their specialized approaches to the Rorschach but none on the traditional material. Similarly, the only discussion of the TAT is by Bellak. On the other hand, individual chapters cover the less

important techniques such as the Mosaic, figure drawings, Szondi, Bender Gestalt, sentence completion, and finger painting. In general, there is little emphasis on research. Index.

BROMBERG, W. *The Mind of Man: A History of Psychotherapy and Psychoanalysis.* (TB 1003.) Harper, 1959. Pp. 334. \$1.95. Reprint.

A history of mental healing from witchcraft to psychosurgery. Both somatic and psychological approaches are included. Developments since 1954 are not covered. Little emphasis on research. Index.

## Sex and Society

\*KRONHAUSEN, E., AND P. KRONHAUSEN. *Pornography and the Law.* (S346 K.) Ballantine, 1959. Pp. 317. \$.75. Original.

This husband-and-wife team of psychologists make an important distinction between erotic realism and pornography. The former is written in a context of understanding human beings and may even be therapeutic. Pornography, or "hard-core" obscenity, functions mainly as an aphrodisiac and involves sexual distortions. Criteria for distinguishing the two are discussed and examples given. A psychological analysis of the effects of pornography is made. Introduction by Theodor Reik. Index.

\*DONNER, J. *Women in Trouble.* (MB 50.) Monarch, 1959. Pp. 256. \$.35. Original.

Based on the "Case Histories" of an anonymous abortionist as told to a novelist writing under a pseudonym, this book purports to contribute to the understanding of an important social problem. Actually it is a façade for the hard-core pornography described by the Kronhausens above. No Index.

\*ELLIS, A. *Sex without Guilt.* (106.) Hillman, 1959. Pp. 192. \$.50. Reprint.

An aggressively written book based on a series of articles for an avant-garde magazine. The author is in favor of masturbation, petting, and pre-marital intercourse but is ambivalent about adultery. He is firmly against sex censorship, sex fascism, and women who drive men into homosexuality. Most psychologists would probably prefer a more scholarly approach for classroom use. No Index.

\*RUSSELL, B. *Marriage and Morals.* (FC 32.) Bantam, 1959. Pp. 215. \$.50. Reprint.

What a delight it is to read this rational and profound man! Covering much the same ground as the Ellis book above, Rus-

sell challenges conventional sexual morality but sees the problem in its emotional and social complexity. How this philosopher puts us to shame with the depth of his psychological understanding! Everything is illuminated, nothing is cheapened. I, for one, will take this 30-year-old classic over any of the current books on the market. No Index.

### Social Psychology

\*GOFFMAN, E. *The Presentation of Self in Everyday Life*. (Anchor, A 174.) Doubleday, 1959. Pp. 255. \$95. Original.

A sociological analysis of the self in terms of the performances which the individual puts on for others. Such performances may serve important functions, such as communicating professional competence, social-class identifications, basic attitudes. Testable questions arise, such as: If an individual consciously adopts a social role and keeps it long enough, will his basic attitudes change? The book is qualitative and anecdotal, but interesting and clever. No Index.

\*HANDLIN, D. *Race and Nationality in American Life*. (Anchor, A 110.) Doubleday, 1957. Pp. 226. \$95. Reprint.

An excellent work on prejudice towards minority groups by a distinguished historian. This complements Allport's fine book on prejudice by analyzing the historical development of slavery and immigration, the concept of race, etc. No Index.

\*PEI, M. *Language for Everybody*. (GC 44.) Pocket Books, 1958. Pp. 340. \$8.50. Reprint.

A chatty, popular book about the functions, biology, and cultural history of languages. It might be useful in a course on psycholinguistics or communication. Index.

JUNKER, B. H. *Field Work: An Introduction to the Social Sciences*. Univ. Chicago, 1960. Pp. 209. \$5.00. Original.

A summary of the literature on observational techniques and problems. The training of the young social scientist is emphasized. Contains a classified bibliography. No Index.

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Hillman Periodicals, 535 Fifth Ave., N. Y. 17.

Monarch Books, Capital Building, Derby, Conn.

New American Library, 501 Madison Ave., N. Y. 22.

Pocket Books, 630 Fifth Ave., N. Y. 20.

University of Chicago Press, 5750 Ellis Ave., Chicago 37.

University of Michigan Press, Ann Arbor, Mich.

## Adler in the Contemporary Scene

Kurt A. Adler and Danica Deutsch (Eds.)

*Essays in Individual Psychology: Contemporary Application of Alfred Adler's Theories*. New York: Grove Press, 1959. Pp. xviii + 480. \$6.50 (cloth), \$2.95 (paper).

Reviewed by JULIAN B. ROTTER

who is Professor of Psychology at Ohio State University and this past semester Visiting Professor at the University of California in Berkeley. He attended many of Adler's lectures and clinics in New York City before Adler's death in 1937. Rotter is the author of *Social Learning and Clinical Psychology* (Prentice-Hall, 1954).

THIS collection of 54 previously published short articles describes the current application of Alfred Adler's views on the nature of human behavior. The 52 contributors are predominantly psychiatrists and psychologists with a sprinkling of educators and social workers.

In his introduction to this volume Joseph Wilder writes, "Most observations and ideas of Alfred Adler have

subtly and quietly permeated modern psychological thinking to such a degree that the proper question is not whether one is Adlerian but how much of an Adlerian one is. This is true particularly for the various post-Freudian schools that are being frequently accused by both the Freudians and the Adlerians of being but modifications of Adler's theories." The point has been made numerous times and this reviewer, for one, strongly agrees that many of the 'Neo-Freudians' would be better designated as 'Neo-Adlerians.' The fact that several of them fail to acknowledge this indebtedness to Adler presents an interesting and puzzling problem. Be that as it may, a strong theme current in this book is the belief of many of the authors that Adler's recognition in the fields concerned with understanding complex human behavior is not commensurate with the true value of his contributions. The editors' selection of these 4 articles are intended to show the vigor and value of Adler's Individual Psychology as a contemporary school of psychology.

How much then is new in Adlerian psychology since Adler's death in 1937? Not a great deal, although the reader who has obtained his Adlerian psychology from secondary sources or has not read Adler's later contributions will find much new. The term *social interest* or its equivalent probably appears more times in these pages than does *inferiority feelings*. A minor innovation is the attempt of one or two of the writers to tie Individual Psychology in with Existentialism. This is easy enough to do since Individual Psychology is so general and Existentialism is so vague.

THE contributions include discussions of philosophical and ethical applications, theoretical discussions of principles and interpretations of pathological syndromes, general discussions of psychotherapy, case reports, descriptions or therapeutic procedures with single cases and groups, and summaries of treatment for clinics. The numerous specific illustrations of treatment of individual cases should substantially help provide students of psychotherapy with concrete and detailed descriptions of Adlerian psychotherapy. Space permits



only an analysis of the trends in these contributions.

To this reviewer one of the outstanding characteristics of this volume is the marked involvement with Adler's notion of *gemeinschaftsgefühl*, usually translated as *social interest* or *social feeling*. This idea represents Adler's conscious attempt to incorporate a value or ethical conception of man's nature into his psychology and psychotherapy. In the face of world problems and the perceived growing trend towards alienation, the present-day Adlerians are placing great stress on the enhancement of social interest to help solve the individual and collective problems of mankind.

The relative failure of Adlerian psychology directly to influence contemporary research and theorizing in American psychology has its counterpart in the failure of American quantitative psychology to influence Adlerian psychology. This volume includes no reports of controlled experimentation. With the exception of White's discussion of the concept of *competence*, there is little effort to achieve greater operationalism or systematization for Adler's concepts.

A third general impression is that many of the case descriptions appear to be too similar. This reviewer thinks that one difficulty with the Adlerian approach is that it contains too few constructs at the general trait level to make adequate differentiations among individuals. Perhaps this fact plus the fact that Adler's great insights into human nature were couched in common sense rather than esoteric terms accounts for his views sometimes being erroneously categorized as 'superficial.'

All in all, this book communicates effectively the flavor of the current applications of Individual Psychology to such fields as child development, education, psychopathology, and psychotherapy. It should be of great interest and value to those psychologists who are immediately concerned with doing something about problems of human welfare and may even serve as a rich source of hypotheses to research-oriented psychologists who are willing themselves to take on the task of operationalizing Adler's concepts.

## DATELINE: SPRING 1961 . . .

### PERSONALITY: AN EXPERIMENTAL APPROACH

By ROBERT W. LUNDIN, Hamilton College

Here is a unique text offering an organized, systematic analysis of the field of personality based on experimental, verifiable observations. It deals with the following problems in the area of personality: motivation, behavior development, effects of aversive stimuli, frustration and conflict, and conditions and development of abnormal behavior and its treatment.

### THE PSYCHOTHERAPY RELATIONSHIP

By WILLIAM U. SNYDER, Pennsylvania State University

This book on the psychotherapy relationship between therapist and client has three principal aspects. It reports conclusions drawn from a four-year research project conducted with the author's clients; analyzes a mass of relevant psychological literature; and presents extensive case material (about half the book) demonstrating methods employed in an eclectic type of psychotherapy focused on interpersonal relationships.

### LEARNING AND BEHAVIOR

By REED LAWSON, The Ohio State University

Relating the study of learning to the understanding of behavior, this text presents a continuous, integrated view of the entire range of learning research. The author begins with an analysis of behavior in terms of a stimulus-response-reinforcement model and then proceeds to explore and relate major areas of learning research contributing to knowledge of this model.

1960

447 pages

\$6.75

### CULTURE AND MENTAL HEALTH

By MARVIN K. OPLER, University of Buffalo

1959

533 pages

\$8.75

*The Macmillan Company*

60 FIFTH AVENUE, NEW YORK 11, N.Y.

# Vision, Photography, and Art

Ralph M. Evans

*Eye, Film, and Camera in Color Photography.* New York: John Wiley & Sons, 1959. Pp. xii + 410. \$8.95.

Reviewed by R. W. PICKFORD

*R. W. Pickford is the first occupant of the new chair of psychology at the University of Glasgow. He was at Cambridge in the 1920s, one of Bartlett's first enthusiastic students, then at Aberdeen, and now for thirty years at Glasgow where, before the chair of psychology was created, he held successively every post in the department of psychology except mechanician. He is known internationally for his work on color sensitivity and color blindness.*

MANY people seem to imagine that the camera cannot 'lie' or misrepresent the facts, and that what it shows must be what the object or scene was 'really' like, and they think that color photography shows us what the 'real' color of the scene or object must have been. It follows that a major work discussing all the many difficulties and complexities of vision and photography in relation to each other is a very valuable addition to our bookshelves.

Ralph M. Evans is the Director of the Color Technology Division of the Eastman Kodak Company. He is not only one of the most well-informed and astute technical experts on photography, but he is also a gifted psychologist. He received the Inter-Society Color Council's Godlove Award in 1959 for his outstanding contributions to our knowledge of color in science, art, and industry, and it would perhaps not be too much to say that his life work has put color photography into the hands of Everyman.

The outstanding features of this book are that it explains in almost nontechnical language the psychological principles of visual perception, the mechanisms of the camera's ways of 'seeing' things, the parts played by form and color and the interplay of color and

illumination in photographs, the principles of color photography, and many other complex problems. It shows us very clearly the ways in which the so-called 'seeing' of the camera is and is not like the vision of the eye.

No other book deals so effectively with the psychology of the perception of objects and scenes, and of apparent size, shape, distance, luminosity and color, coupled with the bearing of these matters upon photography. Indeed, as one might imagine, many photographers have intuitively understood the facts of visual perception, but these facts have never been explained with such simple lucidity before and at the same time brought into relation with the photographer's art. It is a major achievement of psychology to have thrown so much light upon the problems of the camera and the pictures it makes.

EVANS deals with the technical problems of color photography and explains clearly how it works, but without giving away any trade secrets. Since this subject is of interest for almost everybody who has a camera today, it is certain that many readers will be glad to have his straightforward scientific explanations.

By no means of lesser interest are the points related to what the author calls *subject* and *intention* in photography. Here numerous very artfully chosen illustrations show how the four categories of object, situation, event, and emotion cover the greater parts of the subject matter of all photographs. The 'idea' in photography is much more subtle, and it is an esthetic concept, including the photographer's interpretative attitude to his subject matter. Photography is a mode of communication and there are many different purposes

and intentions in it, just as there are in painting, speech, and music.

The chapter on what photography enables us to do is fascinating, especially to the experimental psychologist, for it makes clear, with its apt and cleverly contrived illustrations, how many appearances an object or scene may have, how all these are interdependent and are affected by related objects, by position, distance, angle of vision, illumination, and numerous other factors. Evans cleverly connects all these matters with the optical problems of the camera itself, and with its various capacities and limitations. He also takes up the question of the corrections and secondary effects which may be introduced, after the photograph has been taken, by the various controls of the printing processes. He considers so many interesting problems about the camera itself, in close relation to the psychology of perception, on the one hand, and the aims and interests of the photographer, on the other, that it is impossible to comment adequately upon them all.

The book closes with a very interesting discussion of the possible status of photography and especially of color photography as a branch of creative art. If the essentials of art lie in the control and organization of form, pattern, and design, including the effects of color, all taken in relation to emotional expression, it would seem that the photographer has ample opportunities for being an artist.



RALPH M. EVANS

His task, however, is so much concerned with mechanical, optical, and chemical techniques in his manipulation of objects, lighting, and camera, and in the processing of films and prints, that he tends to be or to become a technician rather than an artist. The ultimate and significant control of his objects and

materials are for the artist much more completely in his own hands, and subject to his own esthetic intuition and judgment. Whether Evans would agree with this comment, and whether he would agree that photography, although of great artistic interest, will never compete with painting as an art, is not clear.

## Huck and Jim in Their Interpretive Balloon

John Dollard and Frank Auld, Jr.

*Scoring Human Motives: A Manual.* New Haven: Yale University Press, 1959. Pp. x + 452. \$9.50.

Reviewed by TIMOTHY LEARY

*Dr. Leary, who is now a Lecturer at Harvard University, was from 1955 to 1959 Director of the Psychology Research in the Kaiser Foundation in Oakland, California. There they were involved in large-scale evaluation of psychotherapy, with negative results that account for the critical atmosphere of this review. Dr. Leary is sure that the difficulty with the practice and evaluation of psychotherapy is fundamentally philosophic. In fact he is now writing a book on the philosophy of the behavioral sciences. Many readers know his Interpersonal Diagnosis of Personality (Ronald, 1957; CP, Sept. 1957, 2, 227-229).*

THE perennial epistemological question of the behavioral sciences (do phenomenological observations and interpretative ratings provide facts?) was settled beyond any reasonable doubt some ninety years ago by a practical logician, name of Tom Sawyer. His lesson still bears repeating.

The two phenomenological observers, Huckleberry Finn and his wise companion, Nigger Jim, soar over the African desert. Huck sights a mirage. Jim sees it too. (Inter-rater agreement is 100%). When epistemologist Tom protests, Jim eloquently states the case for the interpretive observer.

"Yes, Mars Tom, hit's so—you can't deny it. We all seen it, en dat prove it was dah."

"Prove it! How does it prove it?"

"Same way it does in de courts en everywhere, Mars Tom. One pusson might be drunk, or dreamy or suthin' en he could be mistaken; en two might, maybe; but I tell you, sah, when three sees a thing, drunk er sober, it's so. Dey ain't no gitten' aroun' dat, en you knows it, Mars Tom."

"I don't know nothing of the kind. There used to be forty thousand million people that seen the sun move from one side of the sky to the other every day. Did that prove that the sun done it?"

"Course it did. En besides, dey warn't no 'casion to prove it. A body 'at's got any sense ain't gwine to doubt it. Dah she is now—a sailin' thoo de sky, like she allays done."

Tom turned on me, [Huck] then, and says:

"What do you say—is the sun standing still?"

"Tom Sawyer, what's the use to ask such a jackass question? Anybody that ain't blind can see it don't stand still."

"Well," he says, "I'm lost in the sky with no company but a passel of low-down animals that don't know no more than the head boss of a university did three or four hundred years ago."

It warn't fair play, and I let him know it. I says:

"Throwin' mud ain't arguin', Tom Sawyer."

Inferential judgments, namings of molar events, conceptions about invisi-

bles, intuitive ratings, are perfectly acceptable raw data. They provide useful phenomenological records which, when counted, indexed and compared with other indices, add important dimensions to the research transaction. But they are raw data. However agreed upon, they are still not measures. They tell us what went on in the mind of the interpretive observer. They do not produce facts about events external to the observer. Tom Sawyer, he says the same.

In psychotherapy process research it is possible to count molecular acts or to get trained clinicians to interpret, to rate, or to judge. Such counts have been executed by Mahl (word arrangement), Saslow and Matarazzo (verbalization rates), Lennard (type-token), Leary and Gill (ideation), Zimmerman and Langdon (words), Lazowich and Young (subjects), and many researchers from the client-centered school (self-reference, etc.). Ratings and interpretive judgments have been collected in terms of relevant and important variables by Strupp, Snyder, Bellak, Bordin, Robbins, and Wallerstein. Such ratings are not measures of the patient-therapist behavior, but are rather inferential testimony by clinical raters about how they, the clinicians, have interpreted their observations. Now if you read the publications of the sixteen researchers just listed you will see that by and large they understand what they are doing. The counters tell us that they are striving (not always successfully) to eliminate inference. The raters recognize that they are looking for interpretive inference and hoping that they have hired good reporters. Too many other psychologists, however, find it difficult to make this distinction between molecular counts and molar interpretations.

Most unhappily this distinction is not at all clear to Professors Dollard and Auld who have recently published the results of their researches in psychotherapy at Yale University. The title of their book, *Scoring Human Motives*, leads one to expect inferences about invisible molar processes, but the title is not a completely accurate predictor. The very first paragraph of the text, for example, prepares us instead for a manual of molecular content analysis.

The puzzled reader, who wonders if content carriers (linguistic counts), or motives, or both are to be studied in this book, is not helped by the discovery that

the sentence and the emotion always belong together. The lawfulness which is obscurely but powerfully evident in human interaction can never be discerned unless this fact is understood; sentences always have defining emotional and other reactions attached to them (p. 3).

Nor is this obscurity lightened by the additional discovery that some "brief forms of behavior," such as sighing, laughing, and weeping, are to be added to the list of motives, ideational processes, and evaluations of therapeutic technique which comprise the system.

This puzzlement is not diminished as Dollard and Auld discuss the issue. How are these diverse counts and interpretations to be made? The rater is instructed to

score the case so far as possible, as it would be seen by the therapist at the time of the sentence that is being scored—i.e. as it would be seen by a perfect therapist who understood fully what was going on, or rather, as fully as anyone could at that point (p. 20).

He is then told that he must possess a knowledge of psychoanalytic theory and is urged to ask himself, when scoring a sentence of the patient,

What would the therapist (if acting most adaptively) do about this behavior when the scorer sees, for instance, that the therapist would have to make a certain kind of interpretation of resistance, then he sees clearly that the patient's sentence is, indeed, resistance? (p. 22).

At this point the authors ask the question which has by now probably sprung to the lips of the reader himself—"Who can do this scoring?" The answer is

we must admit we don't know . . . our best judgment out of our experience in scoring therapy interviews—is that the scorer must have freedom from severe neurotic conflicts in himself, and that it is likely that especially talented persons do not need a personal analysis or special training in psycho-analysis, though these would certainly be advantageous. . . . All the scoring on which this book is based

was done by the authors—and so it remains to be determined who can score (p. 26).

A HIGH tolerance for confusion must in any case be one of the characteristics of the successful scorer and of the reader as he moves into the 188 pages which list, define, and illustrate the categories for scoring the activities of patient and therapist. Here the twisting and confusing trail we have been following disappears completely into a jungle growth of intertwined concepts. For the patient there are simple content scores: *Yes* and *No*. There are the behavioral vocalisms: sighing, laughing, weeping. There are three strangely selected symptoms: "anxiety, psychosomatic, and obsession." There are therapeutic variables: "resistance" and "reasoning." There is "social mobility," standing in sociological isolation. This mixed collection is surrounded and illuminated by a series of parables and homilies prosed in an astonishingly naive mental hygienese.

The method is fairly reliable. Huck and Jim agree. We are also told that the method is tentatively valid. Some hypotheses tested by the method were confirmed. But how about the broader and more practical criteria of validity? How useful is this system? How much does it advance theory and technique? How does it hold its own in terms of the market place of current research in which Professors Dollard and Auld must compete? On the grounds of ontological clarity, epistemological firmness, and clinical sophistication, this book falls below the standards set by the twelve therapy-process studies previously listed.

Research in psychotherapy has in general produced little to which we can point with pride. From various inferential balloons the interpretive raters peer down eagerly at desert mirages. Below, their more pedestrian colleagues count and sort handfulls of molecular sand. We all have a long way to go, and Professors Dollard and Auld are closer to the crowd than the crowd is to the goal. To know when you are counting facts and when you are naming fictions is a first and necessary beginning step. If you could ask logician Tom Sawyer, he would tell you the same.

## Criminal Typology à la mode de Szondi

Hans Walder

### *Drive Structure and Criminality: Criminobiologic Investigations.*

(Rev. ed.; trans. by Marvin W. Webb.) Springfield, Ill.: Charles C Thomas, 1959. Pp. xviii + 174. \$7.50.

Reviewed by SAMUEL B. KUTASH

who is Chief of the Psychology Service of the Veterans Hospital in East Orange, New Jersey, as well as Visiting Lecturer at Rutgers University. He is a PhD from New York University and a Diplomate in Clinical Psychology. He has worked as a psychologist in a prison system, a state hospital, a school, and a mental hygiene clinic. With V. C. Branham he edited the *Encyclopedia of Criminology* (Philosophical Library, 1949), and very soon he will as editor, with W. H. Ittelson and L. S. Abramson, publish *Perceptual Changes in Psychopathology* (Rutgers Univ. Press).

THE early theories of the existence of criminobiologic types, exemplified by those of Kretschmer and Lombroso, have long been discarded by most students of criminal psychology. Few modern psychologists support the concept of the 'moral imbecile' or the crude ideas of the phrenologists concerning the physical stigmata of criminality. Occasionally sophisticated current investigators come up with newer more intricate typologies to 'explain' criminal behavior. This book presents a typology of criminality based upon the Szondian theory of drives and utilizes the Szondi technique to classify crimes and criminals. It makes reference to Jung's *Psychological Types* but the primary allegiance is to Szondi.

Hans Walder, Attorney General of the Canton of Zurich, Switzerland, a recognized authority in criminology, a doctor of jurisprudence, has mastered the Szondi technique under the tutelage of Lipot Szondi himself. He is obviously skilled in applying Szondian pro-





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New York 1, N.Y.

cedure in the areas of crime detection, criminodiagnostics, probation, and parole. The translator has great respect for the author and is himself a Szondi expert. He has managed a difficult but excellent translation. The volume is one of the *Contributions to Experimental Drive Research and Schicksal Psychology* edited by Szondi.

Walder makes no bones about his view that "there is no other test procedure by means of which one can comprehend the delinquent with equal depth and wealth of elucidation." He finds a clear-cut interrelationship between the basic personality of the offender (including his predispositions) and the nature of his offense. He delineates "unique constellations of drive traits and tendencies which are interrelated to the several types of offenses." He asserts that "a given offender is capable of committing only certain categories of offenses and not others." He identifies significant criminobiologic types of which there are eight corresponding to eight Szondian drive needs. These are derived from the four Szondi test vectors—the sexual, paroxysmal, ego, and contactual drives. Walder tends to devise semantics with specialized meanings, such as the classes of the *latent bisexual*, the *latent sadist and member of a dual union*, the *latent 'Cain' nature*, and the *latent acquirer of valuable objects*. Some of his subclasses are even more esoteric—the *active, militant humanist*; the *"hangman with the heart of a pigeon"*; or the subclass of *childish violence*.

Those familiar with Szondi's test, who may not subscribe to his theory of drives, will nevertheless find a wealth of well-presented Szondi protocols together with dynamic clinical and historical material. The profiles and raw data provide an excellent opportunity to become intimately acquainted with the findings in a variety of criminal cases. Those versed in the Szondi could evaluate the findings independently. It seems that the author started his investigations as a confirmed drive theorist and typologist, used a method based on this theory, and came out with a 'proof' of the theory as applied to criminality. One could have predicted this from reading the sentence—*Proof of a Criminal Ty-*

*pology upon the Basis of the Szondian Theory of Drives*. The book's contribution is, however, its rich clinical material, not its 'proof.'

## Hearing, with High Signal/Noise

William A. Bergeijk, John R. Pierce, and Edward E. David, Jr.

*Waves and the Ear*. Garden City, N. Y.: Doubleday, 1960 (Anchor, S 9). Pp. 235. \$95.

Reviewed by A. WILLIAM MILLS

*who is Assistant Professor of Psychology in Tufts University. He has spent time in the Canadian Arctic finding out how cold affects manual dexterity, time at Harvard University getting a PhD and finding out in what ways two ears are better than one—that in the Psycho-Acoustic Laboratory. After his Harvard experience, he supplied scientific brains at low cost to the U. S. Army with the unofficial title of "PhD, Pfc."*

THIS paperback is a revision of a book that appeared between hard covers in 1958—*Man's World of Sound* by Pierce and David (CP, Sept. 1959, 4, 292f.). Another author has been added, some chapters deleted, and others rewritten. The first book attempted to range over the whole field of aural communication. This one hews close to waves and the ear.

The introduction is more folksy than in the earlier version—so folksy that the reader is not prepared for the solid exposition that lies ahead. The authors present an elementary and lucid account of physical acoustics, psychoacoustics, the anatomy and physiology of the ear and auditory pathways, speech, and the practice of sound reproduction. Bergeijk has added anatomical, comparative, and physiological information to the chapters on the ear and the nervous system. When the subject is acoustics, the Bell Telephone engineers transmit almost the

same messages that appeared in the earlier sample.

The reader is sheltered from the full force of difficult technicalities, but important ideas are not withheld on that account. Contemporary facts and theories about hearing are explained clearly without frightening equations. The preface acknowledges the problem in writing this kind of a book: "either you sacrifice completeness or you lose lucidity, and all too often you wind up with an insufficient amount of both." The authors declare for clarity at all costs. Their style is simple, informal, and deceptively easy to read—deceptive because the content is not easy. When physical ideas are stripped of their equations and then compressed into a few words, there is not much room left for redundancy. But the reader needs redundancy, and omitting full explanations in favor of wide coverage sometimes leaves too little. The beginner will catch the fever of the authors' enthusiasm for their subject more readily than he will be able to follow all of the symptoms.

The organization of the text is usually smooth and logical. Only the chapter on the ear seems to skip too abruptly from one topic or species to another. Subheadings come to the reader's aid every few paragraphs to indicate the direction that the discussion is going to take. Less help is given with the many illustrations, most of which are identified only by number. To find out what they are about the reader must search the text. References and the other paraphernalia of scholarship are omitted except for an annotated bibliography at the end.

This volume is not a textbook, nor is it entertainment, although the authors have made their subject entertaining. It is a scientific report to the general reader. It can be read with profit by the intellectually curious layman, the student, and the scholar. The college teacher who spends much time on hearing will want his students to read it.



*Cleverness will set the mind ajar; wisdom will set it at rest.*

—DAGOBERT D. RUNES

# Sociology of Mass Communication

Charles R. Wright

*Mass Communication: A Sociological Perspective.* New York: Random House, 1959. Pp. 124. \$95.

Reviewed by JOSEPH T. KLAPPER

*who is a research sociologist in the Behavioral Research Service of the General Electric Company in New York City. In the past he has served the Bureau of Applied Research and also the Voice of America and he has been on the faculties of the University of Washington and Stanford University. He has written extensively on mass communication and will soon publish a book which undertakes to integrate the field.*

IN a relatively brief number of tightly packed pages, Charles R. Wright—a Columbia PhD, now in the Department of Sociology at the University of California at Los Angeles and for a long time a writer on this topic—has attempted to provide an introduction to the sociology of mass communication or, as he later put it, “an initial step toward a sociological analysis of the process and social consequences” of such communication. The author has labored with diligence and scholarly care and has produced a book which is frequently provocative and which provides a selective summary of the literature. It is apparently intended more to stimulate relative newcomers to the field than to add to the stock of existing knowledge.

Wright discusses five different topical areas. He first defines mass communication, concentrating on the nature of its audience and on its “aims and functions.” He proposes that the “consequences of performing each of these . . . activities by means of mass communication” may be assayed by means of functional analysis, in the Mertonian sense of that term, and he proceeds to cite various functions and dysfunctions,

actual and hypothetical. His second chapter is devoted to a description of the structure of four “alternative systems of mass communication”: the Soviet, the British and Canadian, our own, and that prevalent in non-industrial countries. The three succeeding chapters are respectively devoted to the “sociology of the audience” of American mass media, the “cultural content” of those media, and their “social effects.” In the course of this discussion, Wright summarizes or cites findings of more than 40 empirical studies and refers to at least as many speculative essays and other documents. His summaries are always lucid, if perhaps occasionally unnecessarily detailed.

Wright is often provocative. His discussion of the functions of communication and the functional analysis, as pursued in the first chapter, define a challenging, and indeed a ‘sociological’ approach to the subject in hand. The interweaving of data on the mediating influence of leaders of opinion and of social structure is the kind of thoughtful exercise essential to developing the sinews of theory. The reader is often stimulated to pause, to reflect, and to perform mental extrapolations; but the occasions of such stimulation are unfortunately discrete: they do not build one upon the other.

The cause of this discontinuity probably lies in the very ambitious topical scope of this little book. Each of the five topics is treated in 25 pages or less, and Wright can therefore make no attempt to be exhaustive. It is his intention to be highly selective. He addresses himself, in each area, to a few specific questions or subtopics, most of which are peculiarly susceptible to sociological discussion and to investigation by sociological techniques. His chapter on the audience for mass communications, for example, is devoted almost exclusively to ways in which individual leaders of opinion and certain aspects of social structure mediate the effect of mass communications upon individuals. His chapter on social effects concentrates on the difficulties of determining the effects upon children of repeated exposure to portrayals of violence, and on some of the identified conditions of successful persuasion. Each of the sub-



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(Dr. Rubin is Clinical Instructor of Psychiatry at the State University of N.Y., Downstate Medical Center, College of Medicine. He is also affiliated with the American Institute for Psychoanalysis and the Karen Horney Clinic.)

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topics is more than well done, but the work as a whole produces a potpourri of uncollected loose ends. This reviewer was particularly disappointed to find that the approach by functional analysis was rarely made explicit after the first chapter, and that the basic analytic model—the four “aims and functions” of mass communication cited in the first chapter—was likewise rarely employed in any systematic way.

The experienced student of research in communications will find this book frequently provocative, although rarely informative. The newcomer to the field, however, is more likely to find it an exciting introduction to a vast and complex subject. The theoretical approach should encourage him to view the field systematically, and the substantive data presented should instill in him a respect for communications research and a desire to read more of it. A selected reading list to help him has been appended by the author.

## Let's Look at Your Decisions

Frederick J. McDonald

*Educational Psychology*. San Francisco: Wadsworth Publishing Company, 1959. Pp. xx + 748.

Reviewed by FRANK R. PETERS

who is Associate Professor of Psychology and Supervisor of Evaluation in the University Counseling and Testing Center of the Ohio State University. He is a Chicago PhD, who worked for some years with the Chicago Board of Examiners and he is especially interested in the analysis of arguments and procedures implicit and explicit in psychological and educational measurements.

THE first question one might appropriately ask a reviewer of a textbook is: Would he use it? I would. Cronbach's *Educational Psychology* (1954) is more precise, Trow's (1950) is wider ranging, and Pressey (Pressey, Robinson, Horrocks, 1959) is

more humane. All of these, as well as McDonald, make too much of too little—a fault not uncommon among young builders or disciples of an emergent faith. We psychologists seem to be particularly fond of desecrating the old and honoring the new, and the excitement over novelty often obscures the worth of both. In psychology as in philosophy we are still writing footnotes to Plato and Aristotle, a profession which seems both honorable and rewarding. It could be more so if we but recognized it.

McDonald's work, for example, could profit if it explicitly included Aristotle's distinction between theory and practice, or at least between theoretical and practical wisdom. The failure to do so obscures the differences between the logical bases of inferences about the learning process and decisions of the teacher. Since McDonald equates 'teaching' and 'inquiry,' and consistently stresses the logical bases of the teacher's knowledge and action, his failure to sustain sufficient principles to distinguish between the grounds for different kinds of conclusions is disappointing.

Yet it is precisely because McDonald does stress the need to examine the grounds for our inferences and actions that I believe the text is worth trying. He charges that teachers are and should be critical, rational, and deliberate 'hypothesis-makers' and 'hypothesis-testers,' who continually test and retest their arguments and actions. In using his text I would ask the students to apply the same canons to its content. We would come out with the unsurprising result that much of what is there would not stand the test.

THIS assertion is not, however, a rejection of the work. Rather, as McDonald points out, a human being is remarkably adept at seeing what he wants to see, forgetting what he wants to forget, and projecting or repressing his own lapses in consistency, hard-headedness, and humaneness. I take it as self-evident that writers of texts (as well as reviewers) are members of that ignoble species. And a text which is both descriptive and an exemplar of stated principles should make a delightful stimulus for learning about learning.

The author, for example, asserts that psychology "as a science, has as the object of its study the observable behavior of organisms." That this is true of some psychological work is clear, but that it is sufficient to encompass all that psychologists attend to is nonsense. The assertion is defensible only if the category of psychologist is much more limited than that suggested by the membership of the APA, or if we acknowledge that the sample of observations on which it is based is patently inadequate. With this view of psychology, however, it is not surprising that Freud, Köhler, Wertheimer, and Koffka, are never cited.

The reader will also find in the book terms that slip back and forth in meaning. *Goal*, for example, is often defined as something which *will* satisfy a need, but more than once the word is used to designate that which the person *expects* to be need-satisfying. And though the author carefully asserts that he will use *profession* only in the sense of a field in which activities are subjected to theoretical analysis (Whitehead, 1933), we hear elsewhere that among the *professional factors* that influence a teacher's decisions are sundry and miscellaneous contacts that the teacher may have had with his colleagues.

True to most of the current mythology in evaluation, McDonald asserts that a common error in school evaluation is to assess learning in broader terms than those directly derivative from teachers' objectives or deducible from what is emphasized in the school. In a laboratory one usually asks what are the consequences as well as asking whether they were expected or desired. I cannot understand why one should not apply the same canons in the classroom. Indeed, to ask teachers to restrict their evaluations to 'desired objectives' seems to me to underwrite myopic visionaries.

Even with the numerous incongruities and disjunctivities, however, the text is a workmanlike exposition of the usual topics included in the domain of educational psychology: motivation and learning, cognitive processes, attitudes, development, et al. Within the limits of the author's theoretical commitments the treatment of learning is good, and several sections describing group make-up are superb.



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By HENRY CLAY LINDGREN, *San Francisco State College,*  
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The major consideration throughout the book is that of communication to the student in what is, essentially, his own universe of discourse. Hence, this is the textbook that *makes the most sense* to the beginning student, as it presents psychology as a serious science.

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"Although we feel that a successful textbook must take careful heed of the needs, motivations, and interests of students, we also feel it must take the next step of bringing the student beyond these initial interests. A course in psychology is of greatest value to the beginning student when it helps him gain new and broader perspectives regarding human behavior. However, these new perspectives must somehow become the student's perspectives and not just the perspectives of textbook authors and instructors. Even when the course is venturing into territory far removed from the 'common-sense' concepts of everyday life, we must help the student keep in touch with his own experience, for if he decides that what he is being asked to learn has nothing to do with him or with reality as he perceives it, we have lost the struggle to promote intellectual growth, if but for the moment."

Ready January 1961. Approx. 520 pages. Prob. \$6.75.

### Handbook of Research Methods in

### CHILD DEVELOPMENT

Edited by Paul Henry Mussen, *University of California, Berkeley.* With contributions by 30 outstanding specialists in the field. This handbook makes available in a single source concrete descriptions and evaluations of the most widely used research techniques in many aspects of the study of child growth and behavior. In addition, it communicates, wherever possible, some of the methodological sophistication and "wisdom" that investigators gradually acquire but rarely make explicit in their publications. The book includes only the methods that have actually been adopted with children and have not been thoroughly described in other volumes. Discussions are limited to the research—as opposed to diagnostic or therapeutic—uses of the methods. 1960. 1056 pages. \$15.25.\*

\* Text edition available for college adoption.

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**JOHN WILEY & SONS, Inc., 440 Park Avenue South, New York 16, N.Y.**

Dr. McDonald received his PhD from Stanford in 1956, and has been on the staff there since. One cannot but notice that his primary interests in learning theory and group dynamics are clearly reflected in the quality of his treatment of these topics. The balance of his text is good, however, and the foregoing observation is meant only to suggest that if he could see his way clear to turn his critical eye back upon his own work, he might well turn out a superior text. There is none yet in educational psychology, and the place sorely needs filling. Meanwhile, McDonald's present work can serve.

## Juggernaut Therapy

Morris W. Brody

*Observations on Direct Analysis: The Therapeutic Technique of Dr. John N. Rosen.* New York: Vantage Press, 1959. Pp. 104. \$2.95.

Reviewed by JULIAN H. PATHMAN

who is Coordinator of Research and Training in the Psychological Service of the Veterans Hospital in Downey, Illinois. He was trained at Northwestern University in physiological and clinical psychology with a special interest in psychoanalysis and has now for fifteen years been training clinical psychologists—and trying to broaden this training. He lectures on the Rorschach technique at Northwestern University.

EARLY in the history of psychoanalysis its theoretical postulates were utilized in the understanding of psychosis, but more recently the analysts have in general veered away from therapeutic applications. Reports on efforts to apply psychoanalytic technique have appeared with increasing frequency ever since Abraham's work of 1908 but with gravitation toward less formalized approaches. The techniques have varied between passivity and activity on the part of the therapist. It is this active

method of marked intervention that typifies the Rosen techniques of "direct analysis," a term suggested to Rosen by Paul Feders.

In contrast to the traditional development of a careful relationship and a cautious interpretative approach, direct analysis utilizes a primitiveness of transactions between the patient and therapist. Assessments of "direct analysis" have been word of mouth. Being based on observation not entirely free from strong emotional bias, they range from incredulity and admiration to sarcastic dismissal.

Rosen's *Direct Analysis* appeared in 1953, a volume consisting of papers published from 1946 to 1952. The present book attempts a relatively dispassionate appraisal.

"The sole purpose of this book is to describe the technique utilized in 'direct analysis,'" states Dr. Brody of Temple University, a psychoanalyst and Director of Resident Training at the Philadelphia Psychiatric Hospital. The slim volume is the first of a series reporting the observations of Rosen's technique resulting from a seminar conducted at the Institute for Direct Analysis. It is, however, more than a description; it is a critical appraisal.

CONSIDERABLE interest, publicity, and controversy have been aroused by Rosen's method. It soon becomes apparent that the present report conveys a different impression of the treatment than that offered by Rosen. Although the basic framework is psychoanalytic, marked differences in dynamics between the conference members and Rosen soon emerge. Thus, is the schizophrenic the result of deprivation at one of the oral stages? Is there a difference between confrontation and interpretation? To comprehend the techniques we must understand Rosen's concept of psychoses as "an interminable nightmare where the wishes inherent in the psychosis are so well disguised that the psychotic does not awaken." Direct analysis attempts to awaken the psychotic from this nightmare, hence the violence of the treatment. In reading the verbatim interaction between the patient and therapist, one may recoil in dismay and view the treatment as brutal and sadistic or bi-

zarre and shocking. Time and time again the patient is made to feel that his psychosis is shameful. Only if you accept the basic postulates as to the nature of schizophrenia or psychosis, will the technique be meaningful—if not acceptable. The author suggests that the technique implies considerable love on the part of the therapist. "It is not his intent to be harsh, for no therapist can show greater love than to save his life."

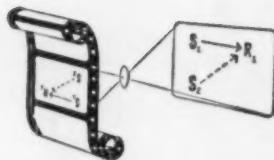
Brody pointedly indicates that even in direct analysis the patient-therapist interaction is only one phase which cannot be separated from the social milieu of the patient. Of importance are the reactions of the supporting personnel who are present at the sessions and who like a Greek chorus chant (symbolically) in the background, approving and disapproving, illuminating the major productions. Group identification is strong, they are joyous when the patient gets well, annoyed and tense when he does not improve.

The inseparability of the man and his method is evident. Here again a frank analysis of Rosen's personality is presented—flattering and unflattering. This is not a technique for any therapist. The sense of omnipotence and omniscience must be an essential ingredient. Dispassionate and objective procedures are strangers in this arena; it is volatile and active with a marked range of positive and negative feelings expressed freely. It is an exhausting, time-consuming procedure not easily mastered and one in which the therapist must be capable of tolerating considerable anxiety. It requires, if I may paraphrase Dr. Zinkin, a robust ego and fearless acquaintance with one's own unconscious. Direct analysis is not applicable to all patients but only for those with overt psychotic behavior. Only when the patient is relieved of his peculiar behaviors may a more conventional approach take over.

The book suffers from a moderate amount of repetitiousness. This reviewer felt that Dr. Brody was perceptive and impartial in his appraisal. His text reads well and is recommended to anyone seriously interested in the theory and therapy of the psychosis. One looks forward to the reports promised by other members of this conference.

# INSTRUCTIONAL MEDIA

Edited by A. A. Lumsdaine



## Mental Retardation: Films for Three Audiences

### *Arts and Crafts for the Slow Learner.*

Hollywood, California: SWS Educational Films. 27 min., black and white, sound. Rental \$6.50; not available for sales.

### *Beyond the Shadows.*

Denver, Colorado: Colorado State Department of Public Health. 26 min., color, sound. No charge except postage; sale \$175.00.

### *The Caswell Story.*

Kinston, North Carolina: Director of Public Relations, Caswell Training School. 14½ min., color, sound. Rental \$5.00; sale \$96.00.

### *A Child is Waiting.*

La Grange, Illinois: Association Films. One hour, black and white, sound. Rental \$3.50; not available for sales.

### *Clinical Types of Mental Deficiency.*

PCR (see CP, June 1960, 5, 207), 1957. 39 min., sound. Rental \$7.25; sale \$175.00.

### *Comprehensive Treatment in Mental Retardation.*

Philadelphia, Pennsylvania: Smith, Kline and French Laboratories, 1957. 34 min., black and white, sound.

### *Confidential File: Exceptional Children.*

New York, New York: Guild Films, Inc. 26 min., black and white, sound. Rental \$10.00; not available for sales.

### *Development of Individual Differences.*

MGH (see CP, June 1960, 5, 207), 1957. 13 min., sound. Rental \$2.75; not available for sales.

### *Forget Not These Children.*

Princeton, New Jersey: Princeton Film Center. 27 min., color, sound. Rental \$5.00; sale \$150.00.

### *Give Them a Chance.*

PCR (see CP, June 1960, 5, 207), 1957. 12 min., black and white, sound. Rental \$2.75; sale \$60.00.

### *Into the Sunlight.*

Vineland, New Jersey: The Training School at Vineland. 27 min., black and white, sound. No charge except postage; not available for sales.

### *No Less Precious.*

La Grange, Illinois: Association Films. 14½ min., black and white, sound. Rental \$3.50; sale \$65.00.

### *There Was a Door.*

New York, New York: Contemporary Films, Inc. 30 min., black

and white, sound. Rental \$7.50; sale \$145.00.

### *Tuesday's Child.*

La Grange, Illinois: Association Films. 14 min., color, or black and white, sound. Rental \$3.50; sale \$65.00 for black and white, \$110.00 for color.

### *The Wassaic Story.*

La Grange, Illinois: Association Films. 30 min., black and white, sound. Rental \$3.50; not available for sales.

Reviewed by RICHARD O. PETERSON

Dr. Peterson is Program Director for Technical Training at the American Institute for Research, where he has conducted and directed numerous research projects since taking his doctorate in 1954 from Carnegie Institute of Technology (where he also taught until 1955). His current teaching at the University of Pittsburgh includes a course in the psychology of mental retardation and (with Jack W. Birch) a seminar in special education and rehabilitation. Dr. Peterson is an active leader in local and state units of the National Association for Retarded Children, and is co-author (with Edna M. Jones) of a handbook, Guide to Jobs for the Mentally Retarded, and an accompanying set of job profiles.

THE last few years have seen a tremendous upsurge of interest in the problem of mental retardation, and many of these same years have seen the increased production of instructional films relating to mental retardation. These two facts are obviously not independent, yet the dependence is mutual, for many of the films were created because some individuals wished to stimulate the interest in others.

The 15 films reviewed divide themselves into three types, according to intended audience and their objective for that audience. The largest of these audiences is the general public, and the function of films for this audience is to arouse general interest and awareness for the problem of retardation, often with an emphasis on community responsibilities. The second, more specific audience is that of parents or others especially close to the problem of retardation, and the objective here is to demonstrate what can be done to help the retarded and how parents can help either themselves or others. The third and most specific audience is made up of persons in various professional and technical specializations directly concerned in work with the mentally retarded. The aim here is to present a segment of technical information relating to some part of the broad problem.

In general, psychologists can make effective use of all three types of films. The 'general public' and 'parent' films will find use in courses of introductory psychology, educational psychology, child development, child guidance, parent counseling, and behavior problems. There are also many among these films for use on those numerous occasions when the psychologist speaks to PTAs, service clubs, and the other groups requesting knowledge in exchange for dinner plus expenses.

The 'technical' films will have more limited use in those specific courses of preparation for specialists, psychologists in institutional work, special education teachers, medical students, and program administrators.

The films for the general public have a number of points in common. Since they are aimed at getting needed attention to the problems of the retarded, they tend to do so with particularly dramatic sequences and startling statements of fact. For example, an early scene in *There Was a Door* shows a room full of adult male retardates (surprisingly wearing suits and ties) frantically playing with toys designed for very young children, amidst deafening chatter and meaningless noise. *The Wassaic Story*, originally produced for a television series *Eye on New York*, begins with a scene of institutionalized re-

tardates apparently being herded into what looks like a prison compound for a little sun, and the narrator intones statements to the effect that this is the first time such scenes have ever been shown to the public. These effects are dramatic, and they do get the attention wanted for the viewing of the less sordid material which follows.

These films usually provide some statistics on the prevalence of the problem (3 percent of the population is the figure most frequently cited), stressing the fact that the problem can occur in any family at almost any time. Much of their content is then devoted to illustrating services and programs designed for the retarded. Many of the films are limited to the activities of a specific institution, and a prospective user needs to determine ahead of time if such a limitation is desirable for his purposes. Such films as *The Wassaic Story* and *The Caswell Story* illustrate the wide variety of educational, vocational, and therapeutic programs available within a single state training school. *Give Them a Chance* illustrates the activities in public and private day classes. A little more broadly, *Forget Not These Children* illustrates programs under the New Jersey Department of Institutions and Agencies, including the home services of the visiting public health nurse. In all of these films, the viewer must keep in mind that what he sees is not necessarily representative of the kinds of programs now being provided, but rather that he is seeing some of the best ones of their kind. Several of the films make a special point of the dedication and capabilities of the program staff. Most of them make the additional point that many more personnel are needed if these programs are to be most effective and paralleled by similar programs elsewhere.

It is particularly noteworthy that the film produced for probably the largest audience, the viewers of the television's defunct *Studio One*, makes some of the most perceptive points of all the 'general public' films. This is probably because *A Child is Waiting* did not try to cover too much even in its longer running time of almost an hour. In this film, a retarded boy in a small private

school is the focus for illustrating the parental conflict in the decision to institutionalize, for illustrating the need for firm and objective teaching and guidance of the child, and for illustrating the problems of financial support for such special programs, especially as related to community attitudes of "are these children worth it?" Much of the credit for the educational value of this film goes to the acting of the cast, and of the dozen or so retarded boys in particular. On the debit side are the somewhat too quick changes in attitude and behavior of the mother and the teacher,



DEMONSTRATION OF THERAPY  
(*No Less Precious*)

essential for plot closure. Also it detracts substantially from the film to have to sit through the Westinghouse intermission ads by Swayze and Furness. Although the ads are no longer interspersed between 'acts,' they are lumped together at the beginning of each of the two reels, making it difficult to avoid them in a continuous showing.

Although its newsreel-like format and the specific events covered tend to date it slightly, *No Less Precious: A Report to the Nation* narrated by Walter Cronkite, gives one of the best overviews of the pace with which concern for the retarded is growing. It highlights: legislative advances, such as those spearheaded by Rhode Island's Fogarty, which made funds available for mental retardation research; research needs, such as are identified in the survey by Masland, Sarason, and Gladwin; in-

creases in appreciation of capabilities as well as of limitations of retardates, especially in competitive employment; educational and institutional advances, illustrated by Kirk's study of preschool experience and by the improved institutional concepts carried out at the Mansfield Training School, Connecticut.

Some of the other features of the general public films are worth noting. Several of them take pains to dispel common fallacies or confusions. For example, the distinction between mental illness and mental retardation is frequently made. Heredity is *not* the basis for most mental retardation, nor are the normal head injuries received by young children. Although the retardate is somewhat more susceptible to the influence of misguided companions, most retardates are not delinquents or major disciplinary problems.

In concluding, most of these films make a final point of the great hopefulness for the mental retardate, including the increasing prospects for his total or partial self-sufficiency under special programs of preparation and supervision. The support of the general public is, however, needed for the establishment and maintenance of research programs, school and workshop programs, and personnel training programs.

THE films oriented to *parents* of the retarded include many of the same points of information as the general public films. There is here, however, the added emphasis on information which parents specifically require: the diagnostic process, parental acceptance and adjustment, siblings adjustment, questions of institutionalization, and organizing community groups for the development and encouragement of special programs and services.

One of the best films for viewing by parents is *Beyond the Shadows*. Beginning with the orientation that parents are not to blame for the occurrence of retardation from organic defects, it proceeds to point out that retardation is relative to the conditions our society imposes, such as expecting everyone to learn the three Rs. The typical community in which special services are limited or non-existent is illustrated, followed by the story of how the



parents in one community (El Paso County, Colorado) banded together to work with the local and state departments of health and the child-guidance clinic to obtain needed programs. The diagnostic process is clearly illustrated through a multidisciplinary approach which includes a pediatrician, psychologist, psychiatrist, medical social worker, public health nurse, and speech therapist. A first tangible product of the parent group is a day school, through which the film tours, and the hoped-for next product is a work adjustment center. The film is technically excellent, and the photography is imaginative.

*Tuesday's Child* is primarily aimed at encouraging parents to organize into effective and active groups, specifically local units of the National Association for Retarded Children. *Confidential File: Exceptional Children* shows how one of these units established the Exceptional Children's Foundation for Mentally Retarded in Los Angeles. This film includes two interviews with parents of retarded children, in which the parents introspect about their process of adjustment to the problems encountered. *Into the Sunlight* is designed to show how effectively the question of institutionalization can be resolved if the child is placed at The Training School at Vineland, New Jersey. Vineland's broad program of evaluation, training, work, and research is extensively illustrated.

EACH of the three primarily technical-audience films reviewed was unique in its content, and therefore they must be described separately. *Clinical Types of Mental Deficiency* (formerly titled *The Feeble-minded*) is concerned with the causes and classification of mental retardation of organic origin. Preliminary sequences review the development of the brain and the central nervous system, pointing out typical results of irregularities in this development. Behavioral differences during psychological testing are illustrated for a normal eight-year-old and for three defectives (all of CA 20, but of MA 7, MA 4, and MA 2). The major part of the film presents detailed physical and behavioral descriptions of six clinical types of defectives and two clinical types which are sometimes defectives. Indi-



DISCUSSION WITH PARENTS AND SPECIALISTS  
(No Less Precious)

viduals illustrating each of the types are shown with all major symptoms and behavioral syndromes demonstrated. The eight clinical types are: hypertelorism, oxycephaly, microcephaly, hydrocephalus, cretinism, mongolism, epilepsy, and cerebral palsy. It is pointed out that these types comprise only a small proportion of all defectives. So much technical information is presented so quickly in this film that it is probably preferable to use the film *after* the types are studied by other means, rather than using it as a major means of presenting the information. Because of the research advances which are being made for some of these types, and especially for the mongoloid, additional information must accompany the film to bring some details up to date. The showing of this film is restricted to technical audiences.

*Comprehensive Treatment in Mental Retardation* is essentially a film report of a three-month study of a comprehensive therapy program in 1956 at Pineland Hospital, Pownal, Maine. The study was made to determine the effects, especially on behavior, of a combination of drug therapy (chlorpromazine) and a comprehensive therapeutic program (psychotherapy, remedial education, physical therapy, recreational therapy, and occupational therapy). Experimentally, about half of the 144 female patients in the study received the drug therapy, while the other half received a placebo as a control group. Patients in both groups received the other part of the comprehensive program, as behavior made it possible to do so. Patients were those who, it was felt, would most profit from the chlorpromazine, those with greatest behavioral problems.

Experimental and control groups each included subgroups of emotionally disturbed, organic hyperactive, and organic destructive patients. Data collected included pre- and post-tests, detailed records, interviews with attendants, and observations. The experiment was conducted 'blind,' in that almost no one knew which groups were receiving the real drugs. Although there were no effects on functional IQ levels in either group, the behavior of the experimental group was substantially improved in a great many areas. Case histories are used to illustrate the somewhat dramatic changes taking place. Although the therapy program other than drugs was available for both groups, it was often not possible to carry out many of the therapy activities with the control group. As a result, the effects of the drug and the other aspects of therapy cannot actually be separated, although it appears that the drug therapy is the necessary first step. In general, this film gives a good example of the kind of research which can be conducted in an ongoing institutional program. Its value will be substantially increased by an accompanying critical discussion of some of the fine points of the research design and results.

The third technical film requires only brief mention. *Arts and Crafts for the Slow Learner* demonstrates a wide variety of activities for three different age and ability groups in a day-school program. Many of the activities are performed with inexpensive and readily available materials. Some of the commentary tends to overgeneralize the therapeutic value of selected activities, but in general this is an informative demonstration, particularly for the student being trained in special education.

WHEN the coverage and specific content of these films are considered against a framework of some of the current trends and concepts relating to mental retardation, a number of lacks are evident, particularly with respect to the psychologist's need for such films. Prominent by their absence are films relating to broader areas such as learning and perception. Films which would demonstrate some of the more recent research findings in these areas would

be of considerable value, not only in the teaching of specialized courses on mental retardation, but also for use in broader courses on learning, intelligence, and perception.

For the most part, the term mental retardation is left undefined, and often wisely so. In a few films, it is restricted to mean retardation from organic causes. Most of the films, however, especially those citing the 3-percent prevalence figure, are implying the inclusion of retardation because of environmental limitations or deprivations. This type of retardation, perhaps accounting for a very large proportion of those termed retardates, is of particular interest to psychologists and other behavioral scientists, because it is with this heterogeneous group that they can actively consider prevention and remedy. One film, *Development of Individual Differences*, relates to this area and can provide a good take-off point for discussion of retardation as a purely behavioral manifestation resulting from environment, as contrasted with retardation as one manifestation resulting

from organic deficit. A film pursuing this concept somewhat further would be greatly welcomed by those of us concerned more with basic processes and principles than with programs and services.

Another film which might be welcomed is one which would provide a more detailed picture of the many different kinds of functions in which the psychologist may relate himself to mental retardation. This film might include the processes of specialized testing and diagnosis, family counseling, psychotherapy, vocational counseling, and research. Such a film would be useful as a means for informing students and psychologists of the breadth of opportunities existing in this field, regardless of their own specialization in clinical, experimental, counseling, or other areas of psychology. As most of the existing films point out, such encouragement is very much needed.

On the positive side, it is good to find that most of the films imply that mental retardation is a dynamic, rather than a static, condition. While there are

no suggestions that measured IQ will increase through proper education and rehabilitation, it is frequently pointed out that marked improvement is evident in social adjustment, conscious control of behavior, and in many kinds of important individual capabilities that are independent of intellectual abilities.

It is to be hoped that the advances which are clearly anticipated in our knowledge and understanding of mental retardation in the next few years will be accompanied by appropriate films describing these advances, especially as they relate to the psychologist in his many roles. In particular, we are looking for more films designed for the technical audience of workers or prospective workers in this area. It is also the personal hope of this reviewer that psychologists will take an increasingly active part, not only by participating in and encouraging work on the problems associated with retardation, but also in bringing appropriate knowledge and understanding, perhaps through such films, to concerned parents and to the general public.

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*PROCEEDINGS OF THE FIRST STANFORD SYMPOSIUM. Edited by Kenneth J. Arrow, Samuel Karlin, and Patrick Suppes.* Stanford Mathematical Studies in the Social Sciences, IV. \$8.50

*Stanford University Press*

# ON THE OTHER HAND



IN DEFENSE OF STANDAL AND CORSINI

May I enlarge upon Dr. Starke R. Hathaway's *CP* review (May 1960, 5, 164-166) of Standal and Corsini's *Critical Incidents in Psychotherapy* (Harper, 1959)? I think some important things have been left unsaid by Hathaway, and *CP* suggests that my dissent from Hathaway's disparagement be expressed here by what it calls a "counter-review."

Hathaway invokes the issue of central tendency; though granting that the design precludes "replication," he deplores the paucity of the "sample" and the lack of "usual controls," and points out furthermore that 166 comments by 28 consultants on 23 events are unmanageable by "usual experimental methods." He also invokes variability, interpreting the diversity of the data as an unwitting "exposé" of the confusion extant in the teaching and practice of psychotherapy. It is true that the past fifteen years have seen the emergence of many new theories (Harper, 1959) for "interpreting and modifying behavior." Hathaway's criterion of "a common body of knowledge . . . contributing to concerted action" may be difficult to achieve—except by regression or by the promulgation of *higher reintegrative hypotheses*. Standal and Corsini's book, however, advances rather than retreats in this respect, though this aspect of its impact on the field is bypassed in Hathaway's review.

The "array" of this symposium illustrates communication among experts, the more remarkable because the situation was deliberately designed to allow the free expression of differences. The contrast between the narrowed focus on one "event," and the wide degrees of freedom reflected in the interpretations upon it from many diverse disciplines, gives limitless scope for contradictions. Nevertheless, certain similarities are observed, as Hathaway notes. When, in a framework designed to elicit discrepancies, similarities emerge in the patterning of the data, the import is that of *central tendency overriding variability*. *Similarity* may be less accurate a term than *consensus*. This does not mean "carbon-

copyright." Psychotherapists differ in many modes; these consultants freely acknowledge the impact on their remarks of their own personality and philosophy, including the raising of issues *ex post facto*. The degree of consensus is, nonetheless, striking.

The evidence in the volume is worth report. In 14 incidents, all the consultants agree generally with the therapist in his handling of "the crisis" (98 comments); in 5 more, though one or another dissents, the 30 comments of consensus rate the score to 77%. In 3 cases, half the commentators (from 6 to 14) "split" almost equally for or against the therapist; while in 1 case, all 7 consultants dissent from the therapist and from each other. In sum, 142 of 166 comments (86%) tend toward unanimity—a proportion that cannot be minimized.

This generality of consensus in the practice of psychotherapy affords foundation for the clarification of at least three great issues raised by these writings for hearing and judgment. Hathaway objected to the absence of general principles, but here are these.

(1) The innumerable and uncontrolled variables of theory and technique, emergent in a vast unstructured body of data, collected without precedent or censor from therapists and consultant-therapists alike, are all accommodated in Fiedler's hypothesis that experienced therapists of different schools are more alike than are experienced and inexperienced therapists of the same school (Fiedler, 1953). The internal patterning of the data, supporting a theory already formulated, suggest that the compilation here presented is itself an experiment *sui generis*.

(2) The "consensus" is the more remarkable considering the crisis described, the majority of which report "storm tactics"—shocking the patient with surprise assault and shattering the principles of therapeutic orthodoxy. Many therapists admit their training in "nondirective" schools and apologize for their abrupt departure from conformity. Nonetheless, they consider this factor decisive in the turning of the tide,

and their behavior is specifically endorsed by the consultants. This hitherto unformulated approval of directive and pressuring techniques is well justified by David Reisman:

"Many incidents involve behavior by the therapist more active than the rules of the game had traditionally allowed. . . . If we ask today why therapy so often takes much longer than in the 'classic' cases of Freud and his early disciples, one factor is, no doubt, *the loss of the original shock value of verbal confrontation with reality*. . . . It would not be surprising if therapists need . . . to discover that they have all disobeyed the rules and can now form a union of sinners" (p. 294, italics mine).

One would not expect to find Carl Rogers in this "union of sinners"; yet he states, "Whatever is real in me is more important than playing a role of acceptance or empathy. I feel that to listen to oneself accurately and to be 'that which one truly is' in the relationship with the client, is one of the most difficult and demanding tasks I know" (p. 310).

Time and again these consultants note the tension created by the patient's stubborn stand against the ethical imperatives of the society by which he is maintained, and press for acceptance and assimilation of the values he has denied. All consultants concur that *no means or technique* required for this reconciliation is subject to censure, if the therapist believes in himself and in his patient in the crucial "moment of truth." Jerome Frank summarizes the urgent climate of a relationship brought to judgment: "The effectiveness of an interpretation seems to depend, not on its truth, but on whether . . . the patient and the therapist believe it to be true" (p. 277). And Iago Gladston concludes: "If, as Cromwell said, 'by the bowels of Christ,' the therapist thought himself to be right, then he *was* right, come hell or brimstone" (p. 305).

(3) In this series of insights into depth therapy, another nonverbalized principle is consistently accepted by all consultants—that the crisis occurs not in the patient but *in the therapist*, only being reflected in the patient's response. Mowrer had earlier shown, on measures of palmer perspiration, that the therapist's tension often exceeds his patient's (Mowrer, 1953); but the field has been slow to affirm him. Only as the therapist recognizes the *fact of crisis* as his moment of decision will he find within himself the reserves required of him: to grow (Whitaker), to transcend (Reisman), to trust the validity of his experiencing (Rogers). "The integrity of the



therapist is more vital to protect than the continuity of the therapeutic process or even the integrity of the patient" (Whitaker, p. 312). The cost is *risk*, and the risk is total—from his deepest feelings and hierarchy of values to professional repute and willingness to abide judgment of his motives. Encounter with crisis demands no less. Had not the therapist responded so wholly and immediately to perceived emergency in all these incidents (but one), in which his own integrity and relation to his patient were vital and forcing factors, no "crisis" would have arisen.

Neither editors nor contributors could have predicted these great outcomes, which advance new frontiers on the horizons of psychotherapy and research.

ELIZABETH Z. JOHNSON  
VA Hospital, Lexington, Kentucky

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## AUSUBEL AND SOCIAL VALUES

Dr. Ausubel (CP, June 1960, 5, 204) quotes me as saying (CP, Feb. 1960, 5, 61f.) that a psychologist has no *right* (my italics) "to make . . . value judgments . . . concerning drug addiction or any other social issue." This quotation subtly misrepresents my statement that a psychologist "has no special *privilege*" to make value judgments on social issues. I intended by my statement to voice my belief that a psychologist is not, by virtue of his training, specially equipped to make judgments on social issues. While he restricts himself to reporting his data, pointing out the empirical relationships among his data, and trying to unify them within some theoretical framework, the psychologist can claim to be an expert in a scientific field. When he passes value judgments about social issues, he is no more an authority than an engineer, politician, or any reasonably informed man-in-the-street.

Dr. Ausubel attributes to me a cultural relativism that "was archaic even forty years ago" and goes on to cite *political* developments in support of his statement. I was not, however, advocating a politi-

cal philosophy or a theory of values. In fact, it will be obvious from my first paragraph that I do not feel that I am specially qualified to do so. If we confine ourselves to developments in the social sciences, it seems obvious that the last forty years have seen an increasing awareness of the variability of social standards among different social groups. Excellent examples of this are provided by studies of child-training patterns (e.g., J. W. M. Whiting and I. L. Child, 1953) and of sexual behavior (e.g., C. S. Ford and F. A. Beach, 1951; A. C. Kinsey, W. B. Pomeroy, & C. E. Martin, 1948).

RICHARD H. WALTERS  
University of Toronto

Dr. Ausubel, in his reply (CP, June 1960, 5, 204) to Dr. Walters (CP, Feb. 1960, 5, 61f.), defends his right to make value judgments. All of us, psychologists included, can and do make value judgments but the real issue is whether we make them in our role of citizens functioning within the culture that defines our morality or whether we make them in our role of scientists. The goal of science seems to be that of understanding rather than judging. Indeed, it may be because the judging function has all too often interfered with the understanding function that concepts like cultural relativism and ethnocentrism have developed.

I was surprised to read that "Dr. Walters' brand of cultural relativism" was "archaic even forty years ago." Although Dr. Walters may buy this brand, he certainly did not manufacture it nor is he its only consumer. A fair number of my social scientist colleagues (conscientious teachers that they are) will be most chagrined to learn that they have allowed themselves to fall behind by forty years in their lectures to introductory classes in anthropology, sociology, and psychology.

ROBERT ROSENTHAL  
University of North Dakota

With this fifth letter CP terminates the correspondence begun by Dr. Vin Rosenthal's (Vin, not Robert) review of Dr. Ausubel's book on Drug Addiction (CP, June 1959, 4, 182f.).—Ed.



I regard ideas only in my struggles: to the persons of my opponents I am indifferent, bitterly as they have attacked and slandered my own person.

—ERNST HAECKEL

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